DOCUMENT RESUME

ED 142 806 08 CE 012 063

AUTHOR	Camaren, R. James; And Others
TITLE	Guidelines for Improvement of Vocational Programs and Resources to Serve Needs of Handicapped Students. Final Report.
INSTITUTION	Performance Management Specialists, Inc., Englewood, Colo.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C.
BUREAU NO	V0215VA
PUB DATE	Sep 75
CONTRACT	OEC-0-74-1668
NOTE	271p.
EDRS PRICE	MF-$0.83 HC-$14.05 Plus Postage.
DESCRIPTORS	Comparative Analysis; Curriculum Development; *Educational Needs; Employment Opportunities; *Guidelines; *Handicapped Students; Nondiscriminatory Education; *Program Improvement; Regular Class Placement; Research Projects; Secondary Education; *Vocational Education
IDENTIFIERS	Colorado

ABSTRACT

A statewide census of all Colorado's handicapped citizens led to a research project which was designed to assess the vocational education and service needs of Colorado's handicapped youth and develop guidelines to modify and improve the existing secondary vocational programs to meet these needs. After collecting the data (primarily by survey), a comparative study of the perceived needs and the existing programs was conducted. The study revealed that there were numerous barriers to serving the vocational education needs of the handicapped. Twenty-nine of these barriers were identified by statement and organized into five general areas: Awareness/acceptance of the handicapped; social-interpersonal relations; program administration and funding; school curriculum; and counselor/teacher problems. From these findings the authors generated a list of issues and actions for program improvement and a preliminary list of strategies for implementation. Finally after synthesizing all the information, the formal list of guidelines (contained in this document) was developed and organized around eight vocational education service areas: Identification, assessment, vocational education planning, programing and instruction, personnel, resources and services, school/community coordination, and environment. (The appendixes encompass a large portion of this document and include several survey forms and reference material.) (BM)

Documents acquired by ERIC include many informal unpublished materials not available from other sources. ERIC makes every effort to obtain the best copy available. Nevertheless, items of marginal reproducibility are often encountered and this affects the quality of the microfiche and hardcopy reproductions ERIC makes available via the ERIC Document Reproduction Service (EDRS). EDRS is not responsible for the quality of the original document. Reproductions supplied by EDRS are the best that can be made from the original.

ED142806

FINAL REPORT

Project No. VO 215 VA

Contract No. OEC-0-74-1668

"Guidelines for Improvement of Vocational Programs and Resources to Serve Needs of Handicapped Students"

Research Project in Vocational Education
Conducted Under
Part C of Public Law 90-576

R. James Camaren
Richard Beck, Nancy Fox

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Performance Management Specialists Inc.
5200 South Quebec Street
Englewood, Colorado 80110

September 1975

CE 012 063

FINAL REPORT

Project No. VO 215 VA

Contract No. OEC-0-74-1668

"Guidelines for Improvement of Vocational Programs and Resources to Serve Needs of Handicapped Students"

A
Research Project in Vocational Education
Conducted Under
Part C, P.L. 90-576

The Project report herein was performed pursuant to a grant from the Office of Education, U.S. Department of Health, Education and Welfare. Contractors or grantees undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not therefore, necessarily represent official Office of Education position or policy.

R. James Camaren, Investigator
Performance Management Specialists, Inc.
5200 South Quebec Street, Suite 202
Englewood, Colorado 80110

September, 1975

PREFACE

The need for guidelines designed to improve vocational education services for handicapped youth in the public secondary schools of Colorado is an outgrowth of the State's Handicapped Children's Educational Act (HCEA).[1] A specific provision of this legislation mandated that a census be taken of all handicapped citizens, ages 5-21, residing within the State's boundaries. Performance Management Specialists conducted a broad phase of the handicapped survey under contract with the Colorado Department of Education.[2] Findings of this census indicated that approximately 90,000 school-age citizens possessed a physical, mental, emotional or speech impairment sufficient to constitute a handicap to learning.

Throughout conduct of the Colorado handicapped census, two factors, each well-supported by parallel studies of the handicapped, emerged repeatedly. First, career and vocational programming for handicapped students was virtually nonexistent except for those persons classified as mentally retarded. In these cases, educational experiences generally were confined to Work-Study experiences directed by special education services. Second, Colorado educational practices upheld the concept that students with handicaps other than mental were not appropriate participants in regular vocational education classes, and should direct attention to college preparatory activities. The effect of existing practice, therefore, has been to steer a majority of handicapped students away from vocational training and to exclude this clientele from mainstreamed vocational education experiences.

---

[1] CRS 1973, as amended, Chapter 123, Article 22, Sections 1-14.

[2] Camaren, R. James. Prevalence of Physically Handicapped Children in Colorado. Denver: P/M/S. Inc., 1973.

In an effort to expand vocational opportunities for handicapped citizens the Office of Education, U.S. Department of Health, Education and Welfare, contracted with Performance Management Specialists in 1974 to conduct a research project in vocational education under auspices of Part C, P.L. 90-576. The research project, designed to develop guidelines for improving vocational education programs and services to handicapped youth, is reported herein. The study received full support from Colorado agencies serving the handicapped, including the Department of Education; the Department of Social Services, Division of Vocational Rehabilitation; and the State Board for Community Colleges and Occupational Education.

Hopefully, findings of this investigation will encourage public secondary schools to modify existing programs of vocational education as appropriate to serve fully the career and occupational needs of the handicapped, and will expand the opportunity of handicapped citizens to participate in a full range of vocational education experiences.

R. James Camaren

TABLE OF CONTENTS

Page

Preface. ii
List of Tables vii

Section

1. INTRODUCTION TO THE REPORT. 1
Background of the Study. 1
Purpose and Objective. 5
Procedures 7
Organization of the Report 12

2. BACKGROUND AND PERSPECTIVE OF COLORADO VOCATIONAL SERVICES TO HANDICAPPED YOUTH. 14
Identification of Colorado Handicapped Youth . . 14
Employment of the Handicapped in Colorado. . . . 18
Job Placement Services for the Handicapped . . . 25
Vocational Education Services to Handicapped Students 30
Publicity Activities Reflecting the Status of Vocational Opportunities for Colorado Handicapped Youth. 40
Summary of Section 2 42

3. CHARACTERISTICS OF EXEMPLARY VOCATIONAL EDUCATION PROGRAMS SERVING HANDICAPPED STUDENTS. 46
Exemplary Program Survey 48
Exemplary Program On-Site Interviews 65
Summary of Exemplary Program Elements. 69

4. COLORADO SURVEY RESULTS AND COMPARISON WITH EXEMPLARY VOCATIONAL PROGRAMS. 75
Colorado Questionnaire Survey Findings 76
Colorado Program Interviews. 85
Comparison of Exemplary and Colorado Programs. . 89

5. STATEWIDE CONFERENCE DISCUSSION OF PROJECT FINDINGS 96
Problems and Barriers to Serving Vocational Educational Needs of the Handicapped 101
Issues and Actions for Program Improvement . . . 106
Strategies for Implementation. 117

6. FINDINGS AND CONCLUSIONS OF THE REPORT. 119
Informational and Agency Barriers to Serving Vocational Needs of the Handicapped. 120
Criteria of Exemplary Programs Serving the Vocational Education Needs of the Handicapped. 128
Colorado Vocational Education Modifications Needed to Improve Services to the Handicapped. 141

Page

7. GUIDELINES FOR IMPROVING VOCATIONAL PROGRAMS/ SERVICES FOR HANDICAPPED STUDENTS IN COLORADO. 145
  Identification 147
  Assessment 150
  Planning 151
  Program Policy 153
  Programming and Instruction. 154
  Personnel. 157
  Resources and Services 159
  School/Community Coordination. 162
  Environment. 164

References. 167

Apendices

A. Classification and Definitions of the Handicapped 172

B. Preliminary Colorado Surveys. 176

C. Exemplary and Colorado Vocational Program Surveys 186

D. Project Dissemination Materials 209

E. Project Team and Advisory Group Members . 232

F. Colorado Agencies Serving the Handicapped 244

LIST OF TABLES

Table Page

1 Exemplary Program Organizational Characteristics. 50

2 Exemplary Program Handicapped Student Characteristics. 52

3 Availability of Vocational Coursework in Exemplary Programs 54

4 Student Services Provided by Exemplary Programs 56

5 Staff Services Provided by Exemplary Programs. . . 58

6 Instructional Services Provided by Exemplary Programs 60

7 Community Relationships Characteristics of Exemplary Programs 63

8 Facilities Provided by Exemplary Programs. 64

9 Colorado Program Organization. 77

10 Colorado Program Student Characteristics 78

11 Colorado Vocational Study Areas Enrolling Handicapped Students 79

12 Student Services Provided by Colorado Programs . . 80

13 Staff Services Provided by Colorado Programs . . . 81

14 Instructional Services Provided by Colorado Programs 82

15 Community Relationships Reported by Colorado Programs 84

16 Facilities Provided by Colorado Programs 85

SECTION 1

INTRODUCTION TO THE REPORT

Background of the Study

In the past decade, a growing awareness of the potential economic value of America's handicapped population emerged in the areas of both education and labor. The Federal Government has assumed a commitment toward improving the educational and economic status of the handicapped. Commensurately, states are supporting legislation and programs designed to halt educational and employment discrimination on the basis of physical, emotional, or mental differences. Today, Americans increasingly are aware that discrimination in the training and employment of the handicapped is due more to prejudices and ignorance than to either demonstrated incapabilities or differences in worker productivity.

In 1968, Congress passed the Vocational Education Amendments, which specifically earmarked funds to facilitate the vocational development of handicapped individuals. It is in the latter category, known as Title IV-B, that this study applies. The term "Handicapped", as defined in the legislation refers to any person either mentally retarded, hearing or vision-impaired, speech impaired, emotionally disturbed, crippled, or having some form of health impairment that precludes success in a regular vocational education program unless some form of student help or programmatic modification is rendered. Title IV-B provides federal assistance to school districts through state educational authorities to facilitate vocational education of disadvantaged and handicapped students, who must meet two criteria to be considered eligible for the program: (1) the student is not presently succeeding or cannot be expected to succeed under current conditions; and (2) the student's disability represents a contributing factor to the lack of success.

In an attempt to assure fulfillment of Colorado handicapped student rights in the educational setting, the Colorado General Assembly in 1973 emphasized a directional change in the education of handicapped students. This body prefaced the amended Handicapped Children's Educational Act with the following declaration: (6)

> ". . .in keeping with accepted educational principles . . .handicapped children shall be educated in regular classrooms insofar as is practicable . . ."

Furthermore, the Colorado State Board of Community Colleges and Occupational Education identified as a State priority of the 1976's the provision of services to assist the handicapped to succeed in programs of occupational education. In its long range program plan of 1974, the Board stated its intent to: (5)

> ". . .work with all local administrators in developing relevant vocational education programs based on population need analysis and job market analysis . . . to provide specialized services to assist disadvantaged and handicapped students to succeed in occupational education programs."

Despite evident progress in equalizing educational opportunities for members of disadvantaged and ethnic minority populations, however, handicapped citizens continue to be excluded from occupational training programs. In Colorado, for example, the Department of Vocational Rehabilitation estimates that 271,000 handicapped persons need additional vocational training in order to meet employment specifications and to upgrade earning capabilities. (5)

In January of 1973, the Colorado Department of Education completed a state-wide assessment to determine the number of handicapped children in public schools of the State. Of 580,000 students enrolled, 80,000 were identified with a handicapping condition sufficient to require some modification in program or support services. (12) Approximately 25,000 of Colorado's handicapped children presently are enrolled in the high school grades; yet, the Colorado State Plan for Vocational Education (Part II), 1973-74, reports that only 1,843 of these students are enrolled in vocational programs, an incidence of less than one percent. (5)

Previous efforts to provide vocational education programs for the handicapped depended in great measure upon the ability to provide "special" programs. However, such special programs lagged behind student demand, because of the difficulty in attracting State and local funds. The present work-experience-study programs in Colorado secondary schools are oriented to serve mentally handicapped learners ages 16 and above. Only recently have teachers in vocational programs accepted as their responsibility the long-range employability development of their students and an equal responsibility to provide career guidance to non-enrolled handicapped students. Handicapped learners for the most part are not extended the services or occupational training opportunities offered regular students. Vocational programs for the most part enroll handicapped students only when no adjustment in facilities is required. Increases which have been reported in handicapped student vocational program enrollment are explained more by reclassification of these students than by an expansion of educational opportunities.

In light of State level efforts to improve occupational opportunities for the handicapped, it behooves vocational educators to modify current services and programs to bring about their more effective use by the school's handicapped clientele. However, few references exist to provide assistance in identifying program factors which may constrain the use of vocational education resources by the handicapped, or to recommend program modifications which will allow these students expanded access to such resources.

Adapting vocational education environments to meet needs of handicapped students is at times a difficult matter, as is the determination of what special help will benefit students, and how such assistance is best rendered. Vocational educators and program administrators might be all too willing to assist the handicapped, but are somewhat reluctant to do so without expert guidance and advice on how to proceed.

Information is needed which provides guidelines for appropriate program modifications and improvements, and thus allows State departments and public schools to initiate sound improvements of vocational education programs and opportunities for handicapped students.

Purpose and Objectives

The purpose of the project was to determine the modifications to existing secondary school programs of vocational education necessary to enable handicapped students to utilize these programs fully in meeting their career and occupational needs.

The project first dealt with the perceived needs of handicapped youth for occupational and vocational training, the problems relative to utilization of regular vocational programs and resources, and the factors which affect the delivery of vocational education services to students with handicapping conditions.

The project then compared actual vocational program practices in Colorado with exemplary program criteria, and advanced recommendations to assist Colorado secondary schools in the design of programs which may afford appropriate vocational education opportunities to handicapped students.

Specific objectives of the proposed project were as follows:

1. Determine the current perspective regarding vocational interests, education and employment of handicapped youth in Colorado.
2. Determine the characteristics of regular vocational programs identified as exemplary in their provision of appropriate opportunities, training and services to the handicapped.
3. Determine the characteristics of vocational education opportunities, training and services currently provided handicapped students in Colorado.
4. Determine the discrepancies existing between the desirable and actual vocational education programs for handicapped students.
5. Develop recommendations concerning program modifications and changes which would allow Colorado public schools to serve the vocational and career education needs of handicapped students effectively.

The intended benefit of this study is to bring about increased utilization of regular vocational education programs by handicapped students. This is what the Colorado Legislature has decreed, and is what an overwhelming number of authorities in the fields of vocational education and clinical psychology have recommended as best for both individual students, and for society. In order to achieve this goal, an objective of the study has been to provide school administrators and vocational directors with guidelines for the modification of regular programs, so they may better meet the needs of the handicapped. Another objective has been to provide meaningful data on the vocational needs of the handicapped to social decision-makers, such as legislators, state agency heads, educators, and federal officials; and also to the public at large, through the news media. The authors believe that one key to greater implementation of reforms benefiting the handicapped is the dissemination of important information regarding their needs.

Procedures of the Study

A methodology of survey research was employed in conducting the project. Within the survey research framework, the project was accomplished in six phases: (1) descriptive; (2) normative; (3) survey; (4) comparative analysis; (5) synthesis; and (6) reporting.

Descriptive Phase. Procedures of this phase were directed toward developing a perspective on handicapped youth in Colorado, with particular attention to current vocational needs, interests, education and employment opportunities.

The number, location and characteristics of handicapped youth were obtained from reports submitted by local districts to the Colorado Department of Education as required by provisions of the 1973 Handicapped Children's Educational Act, and from previous reports conducted in conjunction with Colorado's 1972 state-wide needs assessment.

The career interests of the State's handicapped students were developed from a survey of perceptions held by vocational education teachers regarding the abilities of present programs to serve handicapped youth, and of perceptions held by handicapped youth concerning vocational education interests and career needs. Data collection was carried out in selected sections of the State.

The employment opportunities available to handicapped youth and adults in Colorado were ascertained by interviews with placement personnel of the State's public employment agencies, and of State organizations specializing in career assistance to the handicapped. Documentary reports of Colorado employment data and statistics were reviewed to supplement this phase of the project.

These descriptive data regarding vocational needs, interests and opportunities of the handicapped were utilized to provide orientation to the project and to develop parameters for the conduct of the normative phase of the investigation.

Normative Phase. Procedures of the normative phase were addressed to determining the appropriate or desirable elements of vocational education programs designed to serve the career and occupational needs of handicapped students effectively.

To attain this objective, a listing of vocational education programs perceived as exemplary in their service to handicapped youth was obtained from local and State directors of vocational education and special education in the fifty States. A critical incident checklist of selected vocational education program characteristics, derived from documentary research and from baseline data obtained in the initial research phase of the project, was utilized to obtain normative data from a selected sample of the exemplary programs. The characteristics were categorized within the parameters of: (1) management practices; (2) school policies and regulations; (3) instructions; (4) curriculum; (5) school personnel competencies; (6) student services; and (7) community relations and support services.

As a supplement to the questionnaire responses, interviews were conducted on-site with vocational program directors representing an urban, suburban and rural district of the sample. The interviews provided opportunity for detailed program observation, and offered added perspective on exemplary vocational education programs.

Completion of this phase provided normative data for the survey and comparative phases of the project.

Survey Phase. Survey procedures were employed to determine the status and characteristics of vocational education services and programs currently available or provided students in the Colorado secondary schools.

A survey instrument was administered to a stratified sample of vocational education program directors representing urban, suburban and rural secondary schools of Colorado.

Data collection focused on the presence or absence of desirable vocational program characteristics developed in the normative phase of the project.

Following administration of the survey instrument, interviews were conducted in selected school districts with each chief administrator and vocational program director. The interviews were utilized to clarify survey responses, and obtain additional data on perceived problems regarding the increased utilization of Colorado vocational education resources by handicapped students.

Completion of this phase provided data on existing Colorado vocational education program practices, in terms of criteria to be utilized in the comparative phase of the project.

Comparative Phase. The procedures of this phase sought to determine the discrepancies existing between desirable vocational education programs which serve handicapped students, and the vocational education programs currently operating in Colorado school districts.

Data obtained from documentary and survey research procedures were compared and analyzed in terms of the discrepancies, similarities and further relationships observed during the investigation. Findings were summarized in terms of characteristic relationships representing each parameter of vocational education programs within the secondary schools.

Completion of this phase provided an analysis of findings suitable for discussion and synthesis in the concluding phases of the project.

Synthesis Phase. The procedures of this phase included a comprehensive review of survey results by representatives of Colorado public schools involved with vocational education of the handicapped. Participants attended a working conference designed to develop concrete suggestions from findings of the study which might bring about immediate improvement in vocational services to handicapped Colorado students.

Completion of this phase provided a current and practical data base from which to develop guidelines for the modification of secondary school vocational programs in Colorado.

Reporting Phase. The procedures of this phase were used to develop and report the results of the project.

Synthesized findings were presented earlier in terms of the major project purpose and objectives. From these findings, conclusions were drawn regarding the status of vocational education programs in the Colorado secondary schools, and their application to handicapped students. Recommendations were offered in the form of guidelines for modifying existing programs to enable handicapped students to utilize these programs effectively to realize career and occupational opportunities.

Delimitations of the Project

The normative phase of this study was limited to vocational program data in public secondary schools of the United States, and did not consider post-secondary, higher education or adult education programs.

Status information was limited to vocational education programs and practices in public schools within the State of Colorado.

The study contained data of record prior to June 30, 1975.

Organization of the Report

The project report is presented in seven sections. The Introduction contains the background, justification, purpose and procedures of the project. Section 2 presents a perspective on the vocational needs, interests, education and employment opprotunities of handicapped youth in Colorado. Section 3 presents findings of an exemplary program survey, specifying the desirable elements of vocational education programs serving handicapped students. Section 4 presents findings on the actual status of regular vocational education programs for handicapped students in Colorado public secondary schools, and identifies discrepancies and similarities existing between recommended and actual practices. Section 5 presents the results of a working conference charged with developing a synthesis of study findings.

The final sections contain conclusions regarding the status of vocational education for handicapped Colorado students; and present guidelines for modifying existing regular programs to allow handicapped students more effective utilization.

SECTION 2

BACKGROUND AND PERSPECTIVE OF COLORADO VOCATIONAL SERVICES TO HANDICAPPED YOUTH

The initial objective of the vocational education research project was to determine a current perspective regarding the vocational needs, education and employment of Colorado's handicapped youth. To achieve this perspective, P/M/S investigated the status of vocational education and employment opportunities currently afforded the handicapped in Colorado and the extent of participation evidenced by this clientele group.

This chapter presents results obtained from four areas of investigation: (1) the number, location and incidence of handicapped Colorado youth; (2) the employment and job placement opportunities available to the handicapped; (3) the participation of the handicapped in Colorado vocational education programs; and (4) publicity activities conducted by the P/M/S relative to this descriptive phase of the study.

Identification of Colorado Handicapped Youth

The identification of handicapped youth eligible for vocational education services was accomplished through an examination of State documents, and through interviews with officials of the Colorado Department of Education and the

Division of Special and Vocational Education. P/M/S first ascertained the number of handicapped students within Colorado schools, and then calculated the number of secondary school age enrolled in grades eligible for vocational education services.

Number and Location of Handicaps Among Colorado Public School Students

The Colorado HB 1060 Study of 1973 found the following incidences of student handicaps in the state's K-12 elementary/secondary school population:

Handicapping Condition	Number	Incidence Rate
Physical, Orthopedic/ Chronic Illnesses	4,420	.77%
Visual	1,550	.27%
Hearing	2,410	.42%
Mentally Retarded	19,520	3.40%
Educationally/ Emotionally	53,060	9.24%
Speech	40,020	7.00%
	120,580	21.1%
Less duplications between categories:	-31,580	-5.5%
Totals:	89,580	15.6%

Of the 89,580 handicapped students in the Colorado public schools 51,790 students, or 58.0 percent of all handicapped, were located in the Denver metropolitan area within the counties of Denver, Adams, Arapahoe, Douglas, Jefferson, Clear Creek, Gilpin and Boulder. Approximately 78,000 or 87.0 percent of the total handicapped student body, were located in the front range population areas of the state.

Handicapping conditions among Colorado high school students. The Colorado Department of Education in 1973 reported a total 574,248 student membership in the state's public elementary and secondary schools. Of this number, approximately 49.0 percent were enrolled in secondary education, grades 7 through 12, a total of 281,382 students. Of these, Colorado vocational education officials reported a 131,458 student membership in grades 10 through 12, the years during which vocational education courses traditionally are offered.

No data were reported either on the numbers of handicapped students in grades 10 to 12, or on the number identified by disability and, consequently, known to school officials. Therefore, the P/M/S staff calculated the number and incidence of handicapped high school students from two perspectives - that of general education, and that of vocational education, using official data bases of the two agencies.

1. General Education

   A 1974 Department of Education report to the Colorado legislature stated that 26.6 percent of the state's handicapped students were enrolled in secondary education. Therefore, of Colorado's

89,580 handicapped students, approximately 23,828 were presumed to attend the secondary school grades. Furthermore, vocational education records indicated that 131.458 students, or 46.0 percent of all secondary enrollment attended grades 10 to 12. By applying the 46.0 percentage to the total grades 10 to 12 student body, a number of 10,960 high school handicapped students was calculated. The 1974 report further revealed that 63,936, or 71.4 percent of Colorado's 89,580 handicapped students had been identified by the year 1974. Applying the 71.4 percent rate to the 10,960 approximate number of handicapped students, a total of 7,826 was obtained. The incidence rate of known handicapped in grades 10 to 12 was determined to be 5.95 percent. The 7,826 students represented the number of handicapped in the state's public secondary schools which was eligible for vocational education services.

2. Vocational Education

Data obtained from interviews with state vocational education officials indicated the following incidence rates of handicapping conditions among Colorado's high school student body. Unduplicated percentages were calculated by the P/M/S staff.

Handicapping Condition	Incidence	Adjusted Incidence
Orthopedic	.38%	.28%
Visual	.05%	.04%
Hearing	.09%	.07%
Mental	1.59%	1.19%
Educational	2.42%	1.82%
Speech	3.68%	2.76%
Less duplication between categories	-2.05%	
Total:	6.16%	6.16%

The incidence rate of handicapped students in grades 10 to 12 established by vocational education officials, therefore, was 6.16 percent. Applying this percentage to the 131,428 high school student body revealed that approximately 8,098 handicapped students in Colorado attended secondary school grade levels eligible for vocational education services.

Employment of the Handicapped in Colorado

In order to determine employment opportunities available to handicapped youth, P/M/S examined the areas of industry in Colorado either currently employing handicapped workers or available for employment of this clientele.

A socio-economic study was conducted of Colorado industries, major employers and job areas. The study included analyses of 1970 Census data, publications of the Colorado

Division of Employment, and the results of state and local vocational education student follow-up surveys. Interviews were conducted with representatives of the Colorado Department of Labor, the Colorado State Board of Community Colleges and Occupational Education, the Colorado Division of Rehabilitation and the Colorado Department of Education.

Findings concerning employment opportunities for the handicapped in Colorado are presented in the areas of: (1) incidence of handicapped employment; (2) areas of employment; (3) employment opportunities available; and (4) factors affecting employment of the handicapped.

Incidence of handicapped employment. No reliable, comprehensive, updated information was available on the nature and extent of handicapped employment in Colorado. However, a review of the limited information existing enabled the project team to develop a partial estimate of the numbers, percentages, and occupations of employed handicapped workers.

According to officials of the Colorado Division of Employment, 198,000 handicapped are listed in the 1,105,200 Colorado workforce, an incidence of 17.9 percent. However, the state officials estimated that only 3.5 to 5.0 percent of applicants placed in competitive employment were handicapped. Therefore, existing incidence figures would indicate that a group comprising nearly 18.0 percent of the workforce holds approximately 4.0 percent of Colorado jobs.

Furthermore, up to 72.0 percent of the handicapped workforce may be unemployed. The 1970 Colorado SMSA listed only 57,804 employed handicapped persons in the state during 1970. On a national scope, this estimate was confirmed by the U.S. Department of HEW's Division of Social and Rehabilitation Services, which reported in 1972 that of 221,057 handicapped persons reporting, who had been referred to state social agencies, 74.2 percent were unemployed.

Areas of employment. Of those handicapped persons employed in Colorado on whom partial data were available, a majority was found in trade, service, and non-skilled job areas. Although virtually no information on jobs held by handicapped workers was noted at the state government level, a Denver Public Schools survey reported that 16.9 percent of employed handicapped WES graduates were in custodial or maintenance positions, 10.7 percent were laborers, 9.2 percent in clerical occupations and another 9.2 percent in food service areas. The 1971 program survey reported that only 77.5 percent of the employed handicapped received wages. Of those employed for pay, 29.0 percent were in custodial work, 16.0 percent worked with food services, and 55.0 percent held skilled and unskilled laboring jobs.

Employment opportunity and availability. No Colorado data could be found which treated the employment areas and occupational titles which were either open, marginally available, or relatively closed to handicapped workers. Regarding employment availability in general, however, the federal Census of 1970 listed 1,067,300 jobs in the state, within the following major industrial areas.

Industrial Area	# Jobs	% Total
Trades	224,400	19.8%
Government	185,500	19.5%
Services	168,200	14.5%
Manufacturing	139,100	13.4%
Construction	74,400	7.0%
Agriculture	62,000	5.9%
Transportation	58,800	5.6%
Finance	48,600	4.6%
Mining	16,200	1.5%
Others	90,100	8.5%
Total	1,067,300	100%

A review of Colorado job areas indicated that the greatest employment opportunities may be found in the trade, government, services and manufacturing industries.

Publications of the Colorado Division of Employment listed the industries evidencing the greatest expansion in numbers of job openings from March, 1970 to July, 1974. During this period, the number of jobs increased as follows:

Industrial Area	# New Positions
Agriculture	28,000
Government	11,600

Industrial Area	# New Positions
Services	44,300
Finance	11,300
Trades	57,100
Mining	2,500
Transportation	7,900
Manufacturing	26,700
Construction	36,900
Others	1,700
Total	229,000

From a standpoint of expansion alone, the greatest opportunities for employment of handicapped workers seem to be located in the employment areas of trades, services, construction, agriculture, and manufacturing.

In 1974, the Colorado Division of Employment advised that job seekers might well prepare for specific occupations which evidenced the most rapid growth in Colorado from 1970 to 1975. A publication of this agency contained a listing of state occupations with the largest numbers of job openings since 1970. Without regard to employment area, these occupations were:

Occupation	Total Openings
Sales Worker	18,760
Attendants	8,070
Household workers	7,760

Occupation	Total Openings
Waiter, Waitress	6,300
Laborers	5,940
Nurses	5,240
Cashiers	4,970
Cook	4,120
Janitor	4,080
Drivers	4,050
All others	27,410
Total	96,700

The greatest number of openings has appeared in the occupations of sales worker, attendant, household worker, waiter and laborer. An implication for vocational training of handicapped students is indicated by the areas of rapid expansion. Also, only one of the occupations listed requires a bachelor's degree. This finding parallels national studies in suggesting that more attention be directed toward the training of persons with non-scholarly aptitudes for the wide variety of careers and occupations currently available which require only a high school diploma.

Factors impacting employment of the handicapped. Interviews with officials of the Colorado Division of Employment indicated that proportionate employment of the handicapped will require special efforts regarding: (1) the job performance tasks; (2) the work environment; (3) the selection of promising employment areas; and (4) the willingness of employers to hire the handicapped.

1. Job Performance

Employers hesitate to hire the handicapped when the disability seems likely to interfere with standards of productivity or to become aggravated as a result of tasks performed. Employers are particularly wary of disabilities which are perceived as highly probable of resulting in injury to the worker or to others, especially during emergencies. This condition holds implications for those responsible for wise decision making in the training and placement of handicapped workers.

2. Work Environment

Industries least promising for handicapped employment reportedly are those which feature hot, heavy, or dirty working conditions. Employers hesitate to hire the handicapped when the job requires working with fire, chemicals, and metalic materials; or require working in high places. This condition holds implication for increased education of employers regarding handicapped worker safety records.

3. Selection of Employment Areas

Practical areas of employment for the handicapped reportedly are those which are promising by virtue of their dependence on public patronage, (trade and service industries), and those such as public service, civic and charitable activities where precedents against employment discrimination are well-established by law. Furthermore, these same employment areas are those which have evidenced the most rapid increase in hiring needs during recent years. This condition holds implications for those individuals and agencies responsible for counseling, training and placing the handicapped worker.

4. Employer Willingness to Hire the Handicapped
Most Colorado Employers indicated an interest in hiring handicapped workers in skilled positions if relevant school occupational training could mitigate employer on-the-job training costs.

Job Placement Services for the Handicapped

A second activity undertaken by P/M/S was to determine the status of handicapped youth job placement services in Colorado. Data collecting activities included: (1) interviews with officials of the Colorado Department of Rehabilitation, the Colorado Department of Employment and the Colorado Division of Vocational Education; (2) a questionnaire survey of Colorado sheltered workshop agencies; and (3) analysis of data from DPS youth surveys and national studies bearing on the problem.

Findings concerning the placement of handicapped workers are presented within three headings: (1) the sources of employment placement services; (2) the recipients of the services; and (3) the effectiveness of services in placing handicapped applicants in the Colorado employment force.

Source of handicapped placement services. Findings of the P/M/S documentary analyses, interviews, and sheltered workshop survey indicated that seven major employment placement sources are available to the handicapped youth in Colorado, as follows:

Level	Agency Source	Handicapped Placement Program Efforts
Federal	United States Civil Service Commission	Organized Program
State	Colorado Department of Employment	Organized Program
	Colorado Division of Rehabilitation	Organized Program
	Colorado Personnel Service	No organized program
County	Work Shelters	Organized Program
Local	Private Employment Agencies	No organized program
	Private Employers	Few organized programs
	Public Schools	Organized Program
	Proprietary Schools	Few organized programs
Home	Self, Family and Friend Initiated	Few organized programs

Information on the use of job placement sources by the handicapped in Colorado was limited to data obtained by the Denver Public Schools in graduate follow-up surveys of 1973. In a general survey of 80 handicapped graduates, the 59 employed respondents listed their job placement sources as:

Placement Source	Number	Percentage
Family/relatives	17	29%
School related	16	27%
Self-initiated	22	37%
Other agency	4	7%
Total	59	100%

This survey indicated that self and family-initiated activities account for a majority of placement instances, followed by school-related efforts. The respondents of the DPS survey indicated minimal assistance from other agency sources.

A telephone survey of DPS mentally handicapped graduates produced similar findings. Thirty employed respondents listed their placement sources as:

Source	Number	Percentage
School	13	43%
Friends	4	14%
Self-initiated	10	33%
Other agencies	3	10%
Total	30	100%

Forty-six percent of placements were home-based, 43 percent school-based, and only 10 percent based in other agencies.

Effectiveness of handicapped placement services. Information on the numbers of handicapped applicants placed in employment was obtained from Colorado state employment, rehabilitation, and vocational education agencies, and from representatives of sheltered workshops in the state.

Analysis of computer printouts provided by the Colorado Divisions of Rehabilitation and of Employment, produced the following ratios of applicants, employer referrals and placements during fiscal year 1973-1974.

Agency	Number Applicants	Number Referred	No./% Placed in Employment
Division of Rehabilitation	9,849	5,797	2,688 / 27%
Division of Employment	26,629	8,524	4,516 / 17%
Total	36,478	14,321	7,204 / 20%

Of those actually placed, the largest group was that of mentally handicapped applicants. Examples of referrals and placements by handicap included:

*Handicap	Number Referred	No./% Placed
Mentally Retarded	3,388	1,914 / 55%
Physical-Orthopedic	1,228	591 / 48%
Physical-VH,MH,Speech	579	263 / 45%
Neuro-Psychiatric	256	138 / 54%
Epilepsy	93	44 / 47%
Alcoholism	100	53 / 53%
Drug Addiction	41	18 / 44%

* The number of applicants by handicapping condition was not available.

The Colorado sheltered workshops provided a more effective, although less extensive job placement service to handicapped citizens. A survey of eleven sheltered workshops, conducted by P/M/S in 1974, revealed that of 1,691 applicants seeking aid in fiscal year 1974, 633, or 37.4 percent of all applicants, were placed in paid employment positions. Of these, 56 percent were placed in non-competitive or sheltered employment. The highest rate of placement was achieved by the Goodwill Industries which placed 169 of 193 applicants, a placement efficiency of 88 percent.

A copy of the sheltered workshop survey instrument, and a listing of Colorado's sheltered workshop agencies, are contained in Appendix B of the report.

School-based placement rates were obtained from interviews with representatives of the Colorado Division of Vocational Education. Job placement specialists serving handicapped students were located in all community colleges, junior colleges, and area vocational schools of the state. According to vocational education statistics, 41.2 percent of handicapped student applicants were placed in the employment market in 1971-1972, and an estimated 44.7 percent of applicants were placed during 1973-74 by school placement services.

Of all agency-related placement services in Colorado, therefore, those based in school situations evidenced the highest placement rates, and those based in sheltered workshops the second-highest rates. Both agencies exceeded greatly the placement effectiveness of public and private employment, rehabilitation, and employer-based placement services.

Vocational Education Services to Handicapped Students

In a third phase of descriptive activity, P/M/S sought to determine the number and extent of handicapped student enrollment in Colorado secondary school vocational programs, and to identify factors which might constrain the availability of vocational education services.

Data on handicapped student enrollments in Colorado were calculated by P/M/S from: (1) an analysis of records and interview notes obtained from officials of the Division of Vocational Education, Colorado State Board of Community Colleges and Occupational Education; and (2) a survey of vocational education instructors conducted by the P/M/S staff.

Findings are presented under six headings, dealing with: (1) total Colorado vocational education student enrollments; (2) availability of programs to handicapped students; (3) estimated handicapped student enrollments; (4) occupational courses serving the handicapped; (5) teacher attitudes; and (6) problems in serving the handicapped.

Vocational program enrollments in Colorado secondary schools. Interviews with Colorado State vocational education officials indicated that 31,891 of Colorado's 131,408 students in public secondary schools were enrolled in 165 district occupational education courses in 1972-73. This number comprised approximately 24 percent of the total student enrollment in grades 10 to 12.

Availability of vocational education programs for handicapped students. No Colorado data were available on the number of public school regular vocational education programs enrolling handicapped students, although 86 of Colorado's 181 districts, or 48 percent, provided "special" occupational training programs for the handicapped.

Handicapped student enrollment in Colorado school vocational education programs. As determined previously in the study, the Colorado high school grades 10 to 12 contain approximately 8,098 handicapped students, or 6.15 percent of the total 131,458 student population which is eligible for vocational education. In order to determine the actual incidence of handicapped student enrollment in high school vocational training programs, two measures were employed: (1) a review of State records; and (2) a vocational instructor questionnaire survey.

Interviews with officials of the Colorado SBCCOE revealed that approximately 2,500 handicapped students attend Colorado high school occupational education programs, excluding enrollments of the Colorado Deaf-Blind School. However, 1,641 students of this group are listed in Work/Experience/Study (WES) programs. Therefore, it was assumed that a minimum of approximately 859, or 11 percent of the handicapped students, attend regular vocational education programs.

In an attempt to verify the numbers of handicapped students enrolled in vocational education, P/M/S conducted a survey of Colorado vocational education instructors. The Colorado State Plan for Vocational Education, prepared by the SBCCOE, listed 2,101 vocational education instructors in 165 school districts and 15 vocational technical schools in the State. An 18 percent sample of vocational education instructors in nine randomly selected districts responded to a questionnaire survey instrument shown in Appendix B. Findings from the questionnaire return indicated that 11 percent of high school occupational courses which include WES, and 4 percent of vocational technical school regular class enrollments represented handicapped students. When combined, a total of 7 percent of vocational education enrollments represented handicapped students. This percentage applied to the 31,891 total student vocational education enrollments indicated that approximately 2,232 handicapped students are receiving high school vocational training, and that as many as 1,276 handicapped or 4 percent of all vocational educational enrollments, may attend regular vocational classes. (This figure would include duplicated WES enrollments).

In summary, up to 28 percent of the 8,093 handicapped students in grades 10 to 12 may receive vocational training in Colorado schools, but 16 percent or fewer are enrolled in regular vocational programs. This incidence compares unfavorably with national data obtained by the Olympus Research Corporation, which reported in a 1974 study of six states that 25 percent of handicapped students received occupational training in regular programs, and 48 percent in "special" vocational training programs.

Occupational courses and services available to the handicapped. In Colorado, approximately 74 percent of high school age handicapped students in vocational education were enrolled in WES programs. Of the remainder, the majority of high school enrollers was provided home economics (30%) and business office training (21%) while vocational school handicapped students tended to enroll in trades (49%) business office (16%), and technical training courses (12%).

A comparison of enrollment percentages revealed that Colorado may tend to rely more exclusively upon WES programs to serve handicapped student vocational training needs, and less upon mainstream occupation education than do other states surveyed.

The Colorado State Vocational Education Program also provided that supplementary service be made available to requesting districts, when necessary to ensure full vocational education opportunity to handicapped students. Data on the extent of supplementary services during 1972-73, obtained from Student Profile Sheet records of the SBCCOE, indicated that only 154 students in 4 of Colorado school districts and vocational centers received those services. These numbers represented 7 percent of the handicapped students, and approximately 2 percent of the districts engaged in occupational education programs in Colorado.

The majority of supplemental assistance obtained was of tutorial teacher aide, or counseling services. Of students receiving supplemental services 46 percent were mentally handicapped, 25 percent were physically impaired and 15 percent were emotionally disturbed.

Teacher attitudes toward vocational education for the handicapped. The P/M/S survey of Colorado vocational teachers was conducted with a twofold purpose: (1) to determine the incidence of handicapped students in regular vocational classes; and (2) to ascertain teacher opinions about integrated regular and special students into vocational programs.

Three-hundred, sixty-eight (18%) of Colorado's 2,101 public high school vocational instructors were surveyed. When asked if their programs should serve the handicapped, 38% responded yes, 57% indicated that the handicapped should be served in their programs on a conditional basis, and 5% stated the belief that their programs were not intended to serve the handicapped. The teachers were asked to list reasons why they felt the handicapped should either be served conditionally or not served at all in their respective programs. In order of frequency, the following points were presented:

1. Colorado vocational education teachers receive no training to deal with the handicapped.
2. Teachers do not know the number or extent of the handicapped student enrollments in their high schools or vocational schools.
3. Because of the dangers involved, only handicapped students with minor impairments should be allowed in vocational education.
4. Allowing handicapped students into regular vocational programs would impede the education of regular students.
5. Handicapped students should be allowed only in courses where they will be likely to succeed, and should be counseled only marginally into regular vocational education.
6. Handicapped student might not pass State licensing examinations (i.e., cosmotology), therefore, would waste time in program.

Career Perception of Handicapped Youth

A final preliminary activity was determining career interests and needs of Colorado handicapped youth in order to relate these interests to the perceived adequacy of public school vocational preparation activities.

Two previous Colorado surveys of extremely limited nature were reviewed and one study of six states contributed partial data of a supportive nature. The paucity of data on handicapped student perceptions led P/M/S to initiate a broadly based survey of the clientele.

Career perceptions of handicapped youth are presented in three perspectives: (1) general perceptions; (2) perceptions on future employment; and (3) perceptions of vocational education training. Finally, highlights of the P/M/S handicapped youth survey are reported.

General perceptions on employment. A 1975 Denver Post survey of Colorado handicapped citizens revealed that the handicapped want "meaningful" employment. For example, one cerebral palsy victim was counseled into and trained for sheltered workshop employment, and counted fishhooks for five years before someone recognized her potential. After more appropriate occupational education she now edits a newspaper and tutors blind students. Other respondents perceived that they had been denined a normal life because of: (1) segregated childhood environments; (2) sheltered social lives; and (3) inadequate job training assistance. In general, the Colorado handicapped surveyed expressed the need for society to cease the practice of "shunting them out of the mainstream of activities."

Perception on future employment. A national sample of handicapped students in six states of the U.S. indicated that 33 percent of high school youth wished to work full-time after leaving school, and an additional 20 percent wished part-time employment. The implication for school vocational educational programs points clearly to a need to prepare at least half of the schools' handicapped students for gainful employment. Furthermore, 58 percent of these students wished to obtain a job in which they had received training and experience during the high school years, and 67 percent wished to work at the same job at which employed while in high school. Finally, 40 percent of the students surveyed wished to remain in the same job indefinitely. The implications of these findings for vocational education would seem to be for comprehensive and relevant training, i.e., preparation for areas of high employment opportunity which hold promise of permanency.

Perceptions of school vocational education and training. A 1974 Denver Public Schools publication listed survey responses of 80 handicapped graduates regarding elements of the school vocational education program which either helped, or hindered the students in finding and maintaining employment.

Respondents rated most highly the school vocational education program elements of: (1) training in developing positive work attitudes and habits; (2) opportunity for on-the-job training; and (3) the freedom to elect vocational courses of their own choice. When asked what should have been offered in vocational education to help them gain and maintain jobs, the students expressed the need for: (1) more basic skills; (2) more specific vocational training; (3) more social experience in the working environment; and (4) training in job-interview techniques.

The P/M/S Handicapped Youth Survey. As virtually no data were available which presented a broad perspective on the career interests and needs of Colorado's handicapped youth, P/M/S initiated a survey to fulfill this basic informational need. A questionnaire instrument was developed and presented for critical review to a panel of prominent Colorado vocational and special education authorities. A draft of the survey instrument is contained in Appendix B of this report.

The P/M/S survey was administered to 53 recent handicapped graduates of five Colorado vocational programs in public high schools. Because of the nature of the responses (type of handicap, etc.), the instrument was administered by school authorities, with summary findings reported to P/M/S. Respondents were students known to be handicapped and in a vocational program. For the most part, vocational and special education directors were unable to provide information regarding the vocational needs or preparation of handicapped students, except for those enrolled in Work/Experience/Study programs. Most of the respondents were students with limited intellectual functioning as their handicap. Students enrolled in WES programs, which for the most part are self-contained and combine academic and vocational instruction with on-the-job training for pay, indicated a high degree of satisfactions with their respective programs. A follow-up report of handicapped graduates provided by the Denver and Jefferson County, Colorado School Districts suggested that students with other disabilities and not enrolled in WES did not fare as well.

Forty-seven of the 53 respondees indicated that they had received education about jobs, but only 27 of the 53 said that they had received job information relative to jobs suitable to a person with their type of handicap.

Twenty-seven indicated that they had received academic and/or job related counseling. Forty-one said that they had had "job training" as such. On-the-job training ranked first as the part of the high school program considered most helpful, followed by one-to-one instruction and individualized workbooks or textbooks. When asked to name what source of help had indeed been helpful, the students' high school, vocational rehabilitation, and parents, relatives, and friends were chosen in that order.

Thirty-two of the respondents indicated that they had been encouraged to enroll in their school's vocational education program. Forty-six of the students had received help in finding a job upon graduation, with the high school vocational rehabilitation agencies, and parents again listed most frequently when asked who had furnished job placement help. The students were almost evenly divided regarding whether they were able to get the kind of job they really wanted, and if their school had been helpful in finding that desired employment. Almost all claimed that their handicap had not been an obstacle in getting the desired job.

Assuming that the sample reported here was representative of students in WES programs, general conclusions may be drawn that an overall satisfaction with their school educational programs exists, but more counseling of handicapped students in these programs may be warranted. Furthermore, since out-of-school influences were valued so highly by students as job information and placement sources, school liaison with these sources, including vocational rehabilitation agencies and parents, should be established.

Publicity Activities Reflecting the Status of Vocational Opportunities for Colorado Handicapped Youth

Two public service activities were conducted by P/M/S using the data acquired during the perspective phase of the project. The first of these was the preparation of four special fact sheets, explaining important preliminary project findings in layman's terms. These releases were sent to the following groups, and are shown in Appendix D: (1) all state legislators; (2) all state agencies having a role to play in aiding the handicapped; (3) all private organizations involved with the handicapped of the state in some way; and (4) a select list of employers.

The second activity was the preparation of a directory of Colorado handicapped-serving agencies. Performance Management Specialists compiled, printed, and disseminated a document which explains the role of each of eleven agencies operating in Colorado which are in some way involved with serving the vocational needs of the handicapped.

Referenced in the Appendices of the report, this document presents a series of encapsulations of agency roles and responsibilities, and is intended for use as an agency reference for vocational directors, school counselors, administrators and others who serve the vocational needs of the handicapped in a supportive capacity.

The document was prepared in response to the finding that no existing reference contained descriptive material pertinent to all eleven Colorado agencies whose services were germane to vocational needs of handicapped citizens. Copies were directed to a listing of Colorado cooperating professionals contacted during conduct of this project. Hopefully, this activity may result in an increased coordination among service agencies and greater use of the referral service by vocational educators on behalf of Colorado's handicapped youth.

SUMMARY OF SECTION 2

Incidence of Handicapped Students

1. Although no official data on the incidence of handicapped high school students are maintained by Colorado governmental agencies, P/M/S surveys indicate that approximately 7,900 handicapped students, or 6.16 percent of the 131,428 member high school student body in Colorado grades 10 to 12 are eligible for vocational education services.
2. The most common disabilities among Colorado's handicapped youth seem to be those of speech, perceptual-communicative-emotional, and mental retardation disorders.

Employment of the Handicapped

1. No official data on the nature and extent of handicapped employment are maintained by Colorado governmental agencies; however, P/M/S surveys indicate that handicapped citizens comprise up to 18 percent of the Colorado labor force but hold only 4 percent of Colorado jobs in competitive employment situations.
2. When employed, handicapped workers in Colorado seem limited almost exclusively to unskilled occupations, although on a national scope the handicapped are more prevalent in trades, public service, and clerical occupations.

3. The greatest number of Colorado jobs is found in the trades, government service, and manufacturing employment areas. Of the ten fastest growing occupations since 1970 in the state, only one (nursing) requires a college degree.
4. A majority of large employers hires at least one handicapped worker, mostly in unskilled positions. However, employers indicate willingness to hire more handicapped in skilled occupations if extensive and costly on-the-job training were mitigated by relevant school occupational training.

Placement

1. Only the public schools, some state agencies, and county work shelters evidence organized handicapped worker placement programs in Colorado. Nevertheless, most job placement effectiveness among the handicapped stems from self, relative, or friend-initiated efforts.
2. School-related agencies claim to place up to 45 percent of handicapped applicants, sheltered workshops 38 percent, and state agencies up to 27 percent. Of those placed, more than half are persons suffering mental handicaps.

Vocational Education

1. 165 Colorado districts (91%) offer regular vocational education programs, and 86 districts (48%) offer "special" occupational training for handicapped students.
2. Approximately 24 percent of Colorado students in grades 10 to 12 are enrolled in regular vocational education programs. Although no official data are available, P/M/S surveys indicate that up to 28 percent of handicapped students receive vocational education; but no more than 16 percent attend regular programs, and comprise an average 4 percent of enrollment in classes attended. The remainder is limited to WES programs.
3. Although supplementary (special) services to districts and individual handicapped students are available through state funding, only four Colorado districts (2%) and 154 students (7%) received these services in 1973-74.
4. Colorado teachers are willing to serve handicapped students only conditionally in regular vocational education programs, due to a variety of reasons.

Career Perceptions of Handicapped Youth

1. Little data were available on career interests and needs as perceived by Colorado handicapped youth,

beyond a desire for: (1) expanded vocational opportunities; and (2) "mainstreamed" rather than segregated occupational education.

2. Secondary school vocational departments have little knowledge regarding their services to handicapped youth beyond those enrolled in Work/Experience/Study (WES) programs.
3. Only one-half of Colorado high school handicapped students receive career counseling services, or referrals to employment positions appropriate to their skills.
4. Colorado's handicapped youth are optimistic about employment, indicating that their handicaps do not pose obstacles to obtaining work opportunities.

Colorado Agencies Serving the Handicapped

Eleven Colorado government agencies provide one or more services to handicapped youth. No formal agreement for services coordination appears in the designated agency responsibilities.

SECTION 3

CHARACTERISTICS OF EXEMPLARY VOCATIONAL EDUCATION PROGRAMS SERVING HANDICAPPED STUDENTS

The second objective of the research project was to determine the characteristics of regular (nonsegregated) vocational education programs identified as exemplary in their provision of appropriate opportunities, training and services to the handicapped. Procedures followed in this phase of the investigation included: (1) identification of crucial program elements; (2) development of a survey instrument; (3) selection of respondents; (4) data collection; and (5) data analysis.

A literature review was undertaken to identify crucial enrollment, program, staff, student service, instructional, facilities, management, and community service elements of vocational educaton programs which integrated handicapped students. From this investigation emerged a list of 92 specific elements that, in the judgment of the Performance Management Specialists staff, should be considered key components of vocational education programs which fully meet the needs of their handicapped students. This list of program characteristics then was validated by the Project Advisory Committee, composed of experts in the fields of special and vocational education. A roster of Project Advisory Committee members is contained in Appendix E. The collection of crucial program elements, or characteristics was incorporated into an extensive checklist questionnaire. A form of this instrument is shown in Appendix C.

Chief vocational education officers of the fifty states were asked to nominate one or more exemplary vocational education programs within their respective states. Exemplary nominees were limited to those programs that integrated handicapped students into the mainstream of the full programmatic sequence of vocational education activity.

Twenty-seven state vocational education officials nominated a total of 54 programs as exemplary in nature. Of these, 32 were determined to consist of regular vocational education programs, modified as necessary to include handicapped students. This latter group of programs was requested to participate in the exemplary program survey. Appendix C contains cover letters to state and program officials and a listing of the exemplary programs included in the survey.

In an effort to obtain additional factual detail and insight regarding the conduct of exemplary vocational education programs, the P/M/S staff conducted personal onsite visitations and interviews with five program directors. Interviews were structured to supplement questionnaire survey data, and were considered an extension of the normative survey activity.

Results of the exemplary program survey are presented in three parts: (1) findings of the questionnaire survey;

(2) findings of the onsite interview activity; and (3) common elements of exemplary programs which emerged from data analysis.

Exemplary Program Survey

Data from eighteen of the 32 exemplary programs surveyed were found suitable for analysis. The programs included in the report were those which demonstrated fully integrated vocational curricula, completed response items of the questionnaire, and returned survey forms within an alloted period of time.

Responses from the exemplary districts were classified into small, medium and large categories on the basis of student enrollment. Comparisons within the exemplary programs are shown on the enrollment size basis.

Highlights of the exemplary program characteristics are presented in narrative and tabular form, reflecting major areas covered by the questionnaire. These areas are: (1) program organization; (2) student characteristics; (3) programs enrolling handicapped; (4) student services provided; (5) staff services provided; (6) instructional program characteristics; (7) management practices; (8) facilities available; and (9) community relations.

Program Organizational Characteristics. As displayed in Table 1, exemplary districts were characterized by Open Programs, i.e., course offerings available to all students, including the handicapped. Thirteen districts responded in this category. Three districts reported handicapped student enrollment on a selective basis, and two districts offered both open and selective course offerings.

All of the 18 exemplary program districts reported conduct of a regular (unsegregated) vocational education program. Eight districts identified the program as "Modified Regular," four as "Special" (segregated) and five as a combination of Modified and Special.

A majority of 13 exemplary districts provided for semester or yearly student progression, while seven districts employed some variation of continuous student progress.

When analyzed by enrollment size, the Modified Regular, Open Enrollment, and Continuous Progress program characteristics were most predominate within medium-sized districts. Large and small districts offered Modified and Open programs, but retained the annual promotion pattern.

Student Characteristics. The eighteen reporting districts enrolled 1899 handicapped students, representing 9.4% of the total vocational area enrollment. The percentage of handicapped students ranged from 7% in large districts to 10% in medium-size districts. Of these only 159 were under 15 years of age, and 551 were above the age of 18 years. Exemplary vocational education programs serving the handicapped, therefore, are characterized by a wide range in the age of students enrolled.

Table 1

EXEMPLARY PROGRAM ORGANIZATIONAL CHARACTERISTICS

Data Element	Number of Districts Reporting			
	Small	Medium	Large	Total Districts
1. Type of Vocational Educational Program				
Modified Regular	2	5	1	8
Special Regular	1	3	0	4
Combination	0	3	2	5
2. Student Course Enrollment				
Open	2	9	2	13
Selective	0	2	1	3
Combination	1	1	0	2
3. Student Progression				
Continuous	0	5	1	6
Semester or Annual	2	5	2	9
Combination	0	1	0	1

Table 2 indicates that the vast majority of vocational education programs serving students below 15 and above 18 years of age are located in the medium-size, rather than within the exceptionally large or small districts.

Those handicapped students most likely to be enrolled in regular vocational education programs are those of mental disability, although not in the greatly disproportionate numbers reported in Chapter 2 findings. Fully 44 percent of the handicapped enrollment in the exemplary programs represented physical, sensory, speech and learning disabilities.

When analyzed by enrollment size, large districts were more likely to limit vocational opportunities to the mentally handicapped alone. Medium-size districts enrolled a greater proportion of physically/sensory handicapped students. Small districts were prone to enroll students with learning disabilities. All districts served mild, moderate and severe handicaps within the vocational programs.

A final highlight of exemplary vocational education program student characteristics was their recruitment and enrollment of female students. Females comprised 46 percent of the total vocational program enrollment, and over 50 percent of the handicapped student enrollment. The percentage of female students was larger in medium-size districts, and was smaller within the large districts.

Table 2

EXEMPLARY PROGRAM
HANDICAPPED STUDENT CHARACTERISTICS

Data Elements	# or % of Students Participating			
	Small	Medium	Large	Total Districts
Sex				
Male	53%	51%	70%	54%
Female	47%	49%	30%	46%
% of Handicapped Enrollment				
Male	9.8%	13.0%	7.1%	11.5%
Female	4.6%	7.4%	6.2%	7.0%
Total	7.3%	10.0%	6.9%	9.4%
Age (number)				
Under 15	28	131	0	159
15-18	63	500	779	1342
Over 18	10	521	20	551
Handicap				
Physical	11%	43%	1%	23%
Mental	21%	29%	95%	56%
Learning Disability	66%	26%	4%	19%
Speech	3%	2%	0%	1%
Severity of Handicap				
Mild	28%	19%	2%	12%
Moderate	64%	70%	93%	80%
Severe	8%	11	5%	8%

Vocational Areas Enrolling Handicapped Students. Table 3 denotes the vocational education curricular areas offered by the responding districts and the percentages of 17 exemplary districts which enroll handicapped students within each program area.

Of ten curricular areas, Trades and Industrial Occupations were most likely to enroll the handicapped, followed closely by Business/Office Occupations and Agriculture. The curricular areas least available to the handicapped were those of Technical Occupations, Career Exploration and Consumer Homemaking.

A variable pattern in course area availability become apparent when the exemplary program enrollments were examined by district size. First, all program areas were available to handicapped students in at least three districts. However, small districts were most likely to enroll the handicapped with Agriculture and Homemaking courses. Large districts focused on Agriculture, Trades and Career Exploration, and medium-size districts enrolled handicapped students in all but one curricular area, mostly in the Business and Office, Trades, Health, Agriculture and Occupational Survey fields.

Small districts excluded the handicapped from Technical, Health, Distributive Education and Career Exploration fields. Large districts excluded the handicapped from the Technical and Occupation Survey areas. Medium-size districts excluded the handicapped from only Career Exploration courses. By far the greatest range of vocational education opportunity was available to handicapped students attending medium-size districts.

57

Table 3

AVAILABILITY OF VOCATIONAL COURSEWORK AREAS TO THE HANDICAPPED IN EXEMPLARY PROGRAMS

Program Area	% of Districts Available Small	Medium	Large	Total Districts
Agriculture	67%	55%	100%	65%
Distributive Education	--	45%	33%	35%
Health	--	55%	33%	41%
Consumer Homemaking	67%	18%	33%	29%
Occupational Homemaking	33%	27%	67%	35%
Business/Office	33%	82%	67%	71%
Technical	--	36%	--	24%
Trades, Industry	33%	82%	100%	76%
Occupations Survey	100%	64%	--	59%
Career Exploration	--	--	100%	18%

Student Services Available. Outreach services to handicapped students, including the functions of recruitment, screening, classification, assessment and prevocational counseling, were provided by virtually all of the responding exemplary districts.

Facilitating services of career sampling, personal/social counseling and vocational guidance also were common among the exemplary programs. Transportation and Mobility Aids, however, were provided by only 71 percent and 53 percent of the responding districts.

Job placement services were provided within schools by 82 percent, upon graduation by 94 percent, and after graduation by 76 percent of the exemplary districts. As shown in Table 4, job survey/assessment and employer counseling services were proved by 82 and 59 percent of the districts.

The strength of student service programs was apparent in the exemplary districts regardless of student enrollment size.

Staff Services Available. Staff services were reported in three major areas: (1) resource information; (2) professional development opportunities; and (3) modified working conditions.

A great majority of the exemplary programs supplied professional library resources and curriculum guides. Both categories were reported strongly within small and medium-size districts. Professional library services were weak among large districts.

Table 5 indicates that the exemplary districts also were strong in the provision of professional development opportunities.

Table 4

STUDENT SERVICES PROVIDED
THE HANDICAPPED BY
EXEMPLARY PROGRAMS

Services	% of Districts Providing			
	Small	Medium	Large	Total Districts
Outreach				
Recruitment and Screening	100%	100%	100%	100%
Classification and Assessment	100%	100%	100%	100%
Prevocational Counseling	100%	91%	67%	88%
Facilitating				
Transportation	67%	64%	100%	71%
Career Sampling	100%	100%	100%	100%
Mobility Aids	33%	55%	67%	53%
Personal/Social Counseling	100%	100%	100%	100%
Vocational Guidance	100%	91%	67%	88%
Job Placement				
Job Survey	100%	82%	67%	82%
Employer Counseling	33%	73%	33%	59%
In-School Placement	67%	82%	100%	82%
Graduate Placement	67%	100%	100%	94%
Post-Graduate Placement	67%	73%	100%	76%

Consultant services to staff were provided by 94 percent, and visitation opportunities by 76 percent of the respondents. Medium-size districts were most likely to provide all professional development services. Large districts were weak in providing visitation opportunities.

Among the modified working conditions listed, the exemplary programs frequently provided their staffs added planning time and reduced student loads. Nearly one-half of the respondents provided additional teacher aides. Extra pay incentives for teaching handicapped students were employed less frequently, and only within medium-size districts. Modified working conditions were utilized mostly in the larger districts, and never within the small districts reporting.

Exemplary program administrators were trained in the areas of special and general, as well as vocational education.

Instructional Services Provided. Instructional services dealt with professional and support staff, materials, methodology and testing/grading practices.

Exemplary programs were noted to make use of an interdisciplinary staff approach, employing academic, remedial, and special education teachers as well as medical, social, psychological counseling and community service personnel in concert with vocational education staff members. The staff team resources were employed most extensively in small and medium-size districts. Support staff services were not provided extensively by the exemplary program districts.

Table 5

STAFF SERVICES PROVIDED IN EXEMPLARY PROGRAMS

Service	% of Districts Providing			
	Small	Medium	Large	Total Districts
Resource Information				
Professional Library	100%	82%	33%	76%
Curriculum Guides	100%	91%	100%	94%
Professional Development				
Inservice	67%	91%	67%	82%
Visitations	67%	91%	33%	76%
Consultants	67%	100%	100%	94%
Modified Working Conditions				
Planning Time	--	64%	100%	59%
Reduced Load	--	73%	100%	65%
Additional Aides	--	55%	67%	47%
Extra Pay	--	27%	--	18%
Administrative Training				
Vocational Education	67%	82%	100%	82%
Special Education	100%	82%	67%	82%
General Education	33%	100%	100%	88%

The exemplary vocational programs made broad use of multi-sensory equipment and individualized learning media, although less extensively within large districts.

A majority of exemplary programs utilized instructional methodologies which included performance-based objectives, team teaching, multi-age grouping and field activities. These services persisted across districts of all sizes.

Evaluation practices in exemplary districts were likely to include report cards, parent conferences and criterion referenced tests. Both competitive and non-competitive grading approaches were utilized on a near-equal basis. Norm-referenced testing was rarely employed, and only in small or medium-size districts. The focus of evaluation was predominantly on individualized student progress. However, a majority of districts, both large and small, also examined overall program results, and provided follow-up surveys of program graduates.

Community Interactions. The survey examined external program relationships in four areas: (1) student recruitment; (2) interagency coordination; (3) community program involvement and (4) program services to the community.

A characteristic of all exemplary programs was the use of some form of interaction contact with parents and with the general community.

As shown in Table 7, community interactions referred to identification programs, interagency coordination, community

Table 6

INSTRUCTIONAL SERVICES PROVIDED BY EXEMPLARY PROGRAMS

Approach	% of Districts Providing			
	Small	Medium	Large	Total Districts
Staff Resources				
Academic and General	100%	55%	--	54%
Special Education	100%	73%	33%	72%
Medical, Social and Psychological	100%	64%	33%	65%
Counselors, Community Coord.	67%	73%	67%	72%
Clerical Staff	100%	36%	--	41%
Aides	33%	45%	33%	41%
Materials				
Multi-Sensory Equipment	100%	82%	33%	71%
Individual Learning Media	100%	100%	67%	94%
Special Seating	33%	36%	67%	41%
Methodology				
Performance Objectives	67%	91%	100%	88%
Team Teaching	67%	100%	67%	88%
Multi-Age Grouping	67%	100%	67%	88%
Field Activities	100%	100%	100%	100%

Table 6
(cont.)

Approach	% of Districts Providing			
	Small	Medium	Large	Total Districts
Evaluation Methods				
Competitive Grades	67%	64%	--	53%
Non-Competitive Grades	67%	55%	33%	53%
Normative Testing	33%	18%	--	18%
Criterion-Referenced Testing	100%	64%	67%	71%
Report Cards	100%	90%	100%	94%
Parent Conferences	33%	45%	100%	53%
Evaluation Focus				
Student Progress	100%	91%	100%	94%
Program Results	67%	91%	67%	82%
Follow-Up on Student Success	67%	82%	67%	76%

services and community involvement. Throughout examination of these components, an exemplary program characteristic was the strong use of interactive contact with parents, agencies and employees.

Programs in districts of all sizes recruited handicapped students for vocational curriculum entry, with close attention to the identification of community employment needs and student personal goals. Continuing liaison and interaction took place between vocational education and the state employment, vocational rehabilitation and special education agencies.

Medium and large-size districts conducted extensive community service programs, including parent visitation, employer counseling and community education in agency service network. These particular services were generally lacking in the smaller districts. Finally, the larger exemplary districts utilized industrial advisory committees and parent/student program advisors. Legislative liaison activities, however, were noticeably lacking among all exemplary districts responding.

Facilities Provided. Table 8 reveals that while a majority of exemplary programs provided ramps, doorway, parking, lavatory, telephone and drinking facility modifications for handicapped students, only in medium-size districts were special handrails and non-slip floors provided extensively. Only two programs reported the use of sensory direction devices and alarm systems.

Table 7

COMMUNITY RELATIONSHIPS AND INTERACTIONS CHARACTERISTIC OF EXEMPLARY PROGRAMS

Activity	% of Districts Providing			
	Small	Medium	Large	Total Districts
Identification				
Student Recruitment	67%	73%	100%	76%
Community Needs Assessment	100%	91%	100%	94%
Interagency Coordination				
State Vocational Rehabilitation	33%	100%	100%	88%
State Employment Services	67%	82%	100%	82%
State Special Education	67%	73%	100%	76%
Community Services				
Parent Visitation	67%	82%	100%	82%
Employer Counseling	--	82%	67%	65%
Agency Service Network Education	33%	82%	33%	65%
Community Involvement				
Industry Advisory Committee	33%	73%	67%	65%
Parent and Student Advisors	33%	45%	100%	53%
Legislative Relations	--	27%	--	18%

Table 8

FACILITIES PROVIDED BY EXEMPLARY PROGRAMS

Facility	% of Districts Providing Small	Medium	Large	Total Districts
Ramps, Doorways, Parking	33%	91%	33%	71%
Handrails, Non-Slip Floors	33%	55%	33%	47%
Sensory Direction/ Alarm Mechanisms	--	9%	--	6%
Lavatory, Fountain, Telephone Modification	33%	64%	67%	59%
Adaptive Work Environment	33%	45%	33%	41%

Exemplary Program On-Site Interviews

In order to obtain additional data and clarification regarding exemplary vocational education programs for the handicapped, the P/M/S staff conducted personal onsite visitations with five exemplary program directors. The interviews employed a series of carefully-constructed questions designed to parallel and add depth to the survey instrument responses.

The exemplary program visitations included one urban location, one big-city suburb, two smaller cities and a rural town. The eight major interview questions and a narrative summary of the collective responses are reported as follows:

Question #1. "What percentages of the students attending this center are handicapped?"

One exemplary program director indicated that some of its more severely handicapped attend a sheltered workshop, rather than attempt integration into the regular vocational program. Several of the severely handicapped did attend this center, however, and participated in regular classes. Another director stated that while the school integrated all of its handicapped into regular programs, there were also programs in the district high schools that retained some handicapped students. Two of the schools had definite quotable numbers of handicapped, three did not. Apparently, there was some lack of a clear-cut definition of handicapping conditions, except in the case of the obviously severely impaired. A factor which seemed to manifest itself among all the districts was the fact that apparently some handicapped students or their parents chose to have students remain either in home high schools, or to attend sheltered workshops, rather than to attend the vocational education facility. Consequently, all of the handicapped students in any one disability category were not enrolled at the particular center which was the subject of the interview. None of the five program directors sampled was eager to quote a definite percentage figure. Neither did the program directors evidence certainty regarding particular vocational needs of handicapped students and their degree of realization.

Question #2. "Are there any special provisions made for serving the handicapped?"

All of the exemplary programs offered some form of career exploration program geared to meet handicapped students' interests. Two programs made use of special career exploration classes; the remaining three utilized counseling services geared specifically to serving a handicapped population. One school also made use of a video-tape job exploration package for individual student use that was specifically designed for handicapped persons. Another school indicated that its very existence was due to pressure upon the school board by parents of handicapped youngsters. Consequently, building architecture and facilities, as well as instructional and student services, were geared to accept the impaired students. Interestingly, this same school did not have a definite "handle" on handicapped enrollment as surveyed in the previous question. A conclusion could be drawn that while the institution was indeed created to serve the handicapped, it was in actual practice serving other populations as well. One school had developed a handbook for teachers, parents, and employers that was used to orient them to the needs of handicapped young persons.

Question #3. "Has the building been designed specifically to accommodate the handicapped?"

One district answered "yes" to this question, the others indicated that while the answer was "no," various modifications had been made to facilitate handicapped usage.

Question #4. "Where do students who are blind or deaf go for their vocational training? Who is responsible for insuring that their career needs are met?"

All of the exemplary programs visited had made some provisions for the partially sighted students and those with hearing loss up into the "severe" range. None had specific deaf or blind student programs, and these individuals were served in specialized programs elsewhere.

Question #5. "How do instructors feel about serving the handicapped?"

This response was verified by classroom visitation and by individual teacher brief interviews. All of the programs visited appeared to display positive teacher attitudes, and an absence of rationalizations for excluding handicapped students from regular classes. One district used a very elaborate teacher orientation system for providing needed skills used to teach impaired persons. Another strongly promoted the philosophic position that a public school district has an obligation to serve all children. Of course, this does not mean that the exemplary programs visited integrated all handicapped into all regular classes. Each program had provisions, for example, for programming trainable mentally retarded into work-shelter type situations. A further observation was that the vocational instructors with industrial backgrounds were more accepting of the handicapped than were vocational teachers with academic backgrounds.

Question #6. "What courses are open to handicapped students? How are student interest, abilities, and training potential assessed for placement purposes?"

A thread that seemed to weave through all five exemplary visitations is that inclusion or exclusion from a given program was determined by individual case facts, not by an predetermined set of rules. Of course, there were occasional situations where a handicap precludes inclusion in a given program, but the overriding attitude seemed to be, "You may enroll unless we can prove that this is impossible."--This is not a quote from any of the district personnel interviewed, but instead is an assumption of what a universal, unwritten policy of exemplary programs might well be. It may be argued that this is a very sound philosophic position, as it runs parallel to what many persons believe is an underlying tenet of traditional Americanism, as well as being consistent with the thinking prevalent in the mental health field. In the matter of assessment, all of the programs interviewed made use of testing, counseling, and support services in their efforts to build a sound factual data base for student placement.

Question #7. "What factors do you feel are important in expanding the vocational program to be more open to the handicapped?"

Responses to this inquiry varied widely. It appeared that the various districts believed sincerely that they had achieved optimum services from a programmatic standpoint. Few programs indicated the desire to expand or refine existing recruitment, assessment, or placement procedures.

Question #8. "How do you measure program success?"

None of the schools visited had a formal research program for evaluation as such. Many, however, were using such learner evaluation tools as behavioral objectives and criterion-referenced testing in the classroom, and such program measures as follow-up studies of graduates.

Interestingly, only one of the five exemplary programs sampled was using V.E.A. Part B funds to support a major segment of its program. One other district was receiving Part B funds to support a relatively small activity within one of its major divisions.

Summary of Exemplary Program Elements

Using the data collected from questionnaire and interview activities, the project staff prepared a summary of the key characteristics of the eighteen exemplary districts. In this synopsis are listed important commonalities of these vocational education programs, which were determined earlier in the chapter.

The summary of key features of the exemplary programs culminated this phase of this study, and is a necessary precursor for consideration and comparison of the data collected on Colorado vocational education programs serving handicapped secondary students.

The exemplary program elements are summarized under the headings of: (1) attitude and commitment; (2) interaction and cooparation; (3) identification of needs and goals; (4) systematic delivery procedures; (5) program flexibility and continuity; and (6) environmental design.

Attitude and Commitment. A salient commonality of the exemplary programs was their attitude toward the task of vocationally preparing the handicapped. This quality also might be called a philosophy or underlying spirit. The exemplary programs seemed to be sold on five basic tenets in this regard: (1) the handicapped have the ability to profit from instruction; (2) the handicapped can benefit from vocational training in particular; (3) programs should be required to fit students, not students required to fit the programs; and (4) vocational education has much to offer; it most certainly is not a dumping ground for EMR students or the academic high school's discipline problems.

Interagency and Group Cooperation. A second interesting attribute of most exemplary programs was their proclivity for meaningful interaction with important external agencies and groups in the following ways: (1) they took advantage of or solicited assistance from service groups outside the immediate administration of their own programs; (2) they took steps to insure that their curriculum was relevant to the immediate job market and to the individual student's need--this meant continued liaison with the world of work and familiarity with the various sources of current labor market information; (3) they prepared the outside work environment for receipt of the graduating student. This attribute included such activities as employer counseling and the inclusion of employers on joint school-community planning committees.

In taking the preceeding three steps, the exemplary programs appeared to be seeking a global objective of bringing the handicapped student closer to the society in which he ultimately must live and work. If the student is to be mainstreamed within the school program, he must also be mainstreamed within the broader context of society. A theme of joint effort to benefit the handicapped runs through the exemplary programs. The schools saw themselves as partners in an overall helping effort which also included parents, local, state, and federal agencies, and various other public and private groups.

Cooperation seemed to be a by-word with the exemplary programs. This manifested itself in their relationships with other groups serving the handicapped, the two most obvious being special education and vocational rehabilitation. This cooperation was evidenced both on the local level, and with the state agencies overseeing these two functions.

Establishment of Needs and Goals. Another characteristic of the exemplary programs was identification of needs and goals. If, for example, there was a number of hearing-impaired youngsters in a given community, the exemplary program was ready to serve this localized special need. The population had been reasonably identified, and services and equipment necessary were on line to assist these students when they arrived.

Service Delivery. The area of service delivery systems was one in which the exemplaries excelled. They recognized the fact that a system geared to help students directly is different from one designed to effect liaison with student-serving agencies. And indeed, the exemplary programs each had both kinds of service delivery system in working order. The student-serving systems were chronologically subdivided into four stages: (1) identification and referral; (2) pre-vocational career exploration; (3) training and placement; and (4) follow-up.

Curriculum flexibility was another major commonality among exemplary programs. This attribute manifested itself in both subject matter content and duration of training. Obviously, the special needs brought about by various handicapping conditions demand a degree of flexibility on the school's part, and the exemplary programs, at least, were willing to oblige.

Program Flexibility and Continuity. Flexibility and continuity of programming represented an important part of the exemplary programs. It most frequently manifested itself in adaptations of enrollment, instructional, and evaluation procedures. Many programs used the open-door admissions policy, use of experienced students as tutors of newcomers, and instructional procedures based on commercial standards of industry, with the work skills taught being those derived from a task analysis of the actual job. Evaluation followed these performance standards, with behavioral testing accorded more importance than oral and written evaluative measures.

Environmental Adaptations. Environmental adaptations to facilitate vocational education of the handicapped were a priority of concern among the exemplary programs. These efforts took three forms: (1) an attempt was made to design new physical facilities in an architectural barrier-free manner, and either to add modifications (such as wheel chair ramps) to older facilities, or to remodel them; (2) support systems to improve the instructional process were made available to teachers. Special education teachers often served as consultants to vocational teachers to advise them of what aids and modifications would best help particular students. The vocational instructors also received advice on the use of these special materials; and (3) informational efforts were made by the schools to prepare community members and employers to receive handicapped graduates. These groups received counsel regarding capabilities of handicapped persons and desirable work environment modifications for enabling the handicapped to function in the most normal manner possible.

ELEMENTS OF A MODEL PROGRAM
SERVING VOCATIONAL NEEDS OF THE HANDICAPPED

1. Attitude, acceptance of responsibility and commitment to Handicapped.
    (a) State funding
    (b) State laws
    (c) Professional willingness
    (d) Liberal program policy

2. Inter-agency and Professional-Parent Cooperation.
    (a) Voc Rehab, Special Education, Vocational Education
    (b) Vocational and Special Educators, Counselors and Parents

3. Identification of Needs and Establishment of Goals.
    (a) Target group identified
    (b) Community resource identified
    (c) Outcomes defined

4. Development of Procedures for Service Delivery

    Systematic procedures for student:

    (1) Intake, referral, staffing, programming
    (2) Pre-vocational counseling, training, job placement
    (3) Program planning

5. Flexibility and Continuity of Programming
    (a) Open enrollment - open exit
    (b) Adoptive curriculum and programming
    (c) Adoptive evaluation
    (d) Training and retraining

6. Environment Designed with Handicapped in Mind
    (a) Physical facilities (barriers)
    (b) Supportive services for:
        (1) Staff
        (2) Student
    (c) Community participation

Section 4

COLORADO SURVEY RESULTS AND COMPARISON WITH EXEMPLARY VOCATIONAL PROGRAMS

The third objective of the project was to determine the characteristics of vocational education services currently provided Colorado handicapped students, in reference to the criteria established by the prior survey of exemplary programs.

To achieve this purpose, the identical survey instrument utilized with the exemplary programs was administered to a ten percent random sample of Colorado secondary school vocational programs. Of this population, nine school districts or area vocational schools which serviced handicapped students responded in sufficient quantity to permit an analysis of results. The districts included in the Colorado sample are listed in Appendix C.

Parelleling procedures of the exemplary program survey, personal interviews were conducted with directors of five Colorado vocational programs participating in the Colorado survey.

Finally, the status of Colorado vocational programs serving the handicapped was summarized, and compared with the exemplary program criteria. From an analysis of similarities and discrepancies, guidelines for vocational program modifications needed to serve handicapped student needs were formulated. The guidelines appear in Section 7 of this report.

Results of the Colorado survey activities are presented under the following headings: (1) Colorado Questionnaire Survey Findings; (2) Colorado Program Interviews; and (3) Comparison of Exemplary and Colorado Vocational Programs.

Colorado Questionnaire Survey Findings

Data from the nine sample districts returning usable survey responses were far more incomplete than was information obtained from exemplary programs. Therefore, findings were not presented in the categories of large, medium and small size districts. Those data collected were classified within areas employed in the analysis of exemplary program results, and included: (1) program organizational characteristics; (2) student characteristics; (3) vocational course work availability; (4) student services; (5) staff services; (6) instructional program characteristics; (7) management practices; (8) facilities; and (9) community relations.

Program Organization. Colorado vocational programs serving the handicapped were characterized by open enrollment opportunity afforded all students, and by the provision of regular (unsegregated) although perhaps modified courses for the handicapped. However, Colorado programs tended to utilize semester or annual promotion, rather than a continuous progress approach to student advancement.

As noted in Table 9, the majority of Colorado respondents represented urban or suburban populations.

Table 9

COLORADO PROGRAM ORGANIZATION

Data Element	# and % of Programs		Data Element	# and % of Programs	
Program Type			Student Enrollment		
Modified Regular	7	78%	Open	5	56%
Special Programs	1	11%	Selective	1	11%
Combination	1	11%	Combination	3	33%
Community			Student Progression		
Urban	4	44%	Continuous	3	33%
Suburban	3	33%	Semester/Annual	5	56%
Rural	2	22%	Combination	1	11%

Student Characteristics. The nine Colorado districts reporting enrolled 3,325 students, 1,851 male and 1,474 female. Of this number, 15 percent were identified as handicapped. A majority of handicaps occurred in the categories of physical/ sensory impairment and learning disability. Only 29 percent of the handicapped students served were classified as mentally impaired. Student characteristics are reported in Table 10.

Colorado programs were prone to limit services to the 15 to 18 year age group, although fully 20 percent of the students were listed as over 18 years of age.

These programs were highlighted by their extent of services to female handicapped students, who comprised over half of the impaired students served in vocational programs, although totaling only 46 percent of the full student body.

Table 10

COLORADO PROGRAM STUDENT CHARACTERISTICS

Data Element	# and % of Programs	Data Element	# and % of Programs
Sex		Type of Handicap	
Male	1,851 56%	Physical	144 29%
Female	1,474 44%	Mental	64 13%
Incidence of Handicap		Learning Disability	184 37%
Male	244 13%	Speech	60 12%
Female	252 17%		
Total	496 15%		
Ages		Severity of Handicap	
Under 15	20 4%	Mild	144 29%
15-18	377 76%	Moderate	184 37%
Over 18	119 20%	Severe	168 34%

Colorado vocational programs served students with each degree of handicapping condition in near-equal measure. The students served were reported as 19 percent mild, 37 percent moderate and 34 percent severely handicapped.

Vocational Coursework Availability. A majority of Colorado respondents offered the vocational coursework areas of Distributive Education, Health, Business/Office, Technical, and Trades preparation. Approximately one-half offered Agriculture and Occupational Homemaking. Only two programs listed Consumer Homemaking.

As shown in Table 11, in all program areas reported, 75 percent or more of these districts enrolled handicapped students. Full opportunity for the handicapped was extended in the program areas of Agriculture and Distributive Education.

Table 11

COLORADO VOCATIONAL STUDY AREAS ENROLLING HANDICAPPED STUDENTS

	# of Programs			# of Programs	
Program Area	Offered	Enroll. Handic.	Program Area	Offered	Enroll. Handic.
Agriculture	4	4	Occupational Homemaking	4	3
Distributive Education	6	6	Business/ Office	7	6
Health	5	4	Technical	8	7
Consumer Homemaking	2	2	Trades and Industry	8	6

Student Services. As listed in Table 12, the outreach services of recruitment, classification and prevocational counseling were provided handicapped students by two-thirds or more of the reporting districts.

Facilitating services of transportation, career sampling, personal counseling and vocational guidance also were common to Colorado programs. Mobility aids, however, were provided by only two of the nine programs reporting.

More than three-fourths of the Colorado programs utilized job survey, in-school placement and graduate job placement services. Only approximately one-half of the respondents provided post-graduate placement services and less than half provided employer counseling regarding employment of handicapped students.

Table 12

STUDENT SERVICES PROVIDED BY COLORADO PROGRAMS

Service	# and % of Programs		Service	# and % of Programs	
Outreach			Job Placement		
Recruitment	8	89%	Job Survey	7	78%
Classification	9	100%	Employer Counseling	4	44%
Prevocational	6	67%	In-School Placement	7	78%
Facilitating			Graduate Placement	9	100%
Transportation	6	67%	Post-Graduate Placement	5	56%
Career Sampling	9	100%			
Mobility Aids	2	22%			
Personal Counseling	7	78%			
Vocational Guidance	8	89%			

Staff Services. All of the reporting Colorado districts provided their vocational staffs with curriculum guides, and two-thirds provided services of a professional library. The professional development opportunities of inservice training, visitation schedules and consultant services also were provided by a large majority of districts.

Colorado districts were less prone to offer modified working conditions to vocational staff serving the handicapped. As shown in Table 13, while six of the nine respondents listed the availability of added planning time and reduced teaching load, only one or two districts provided either additional human resources or extra pay incentive.

Administrator preparation was relatively narrow among the Colorado districts. In only five districts was the chief administrator trained in vocational education. Two districts reported special education, and two districts reported general education training backgrounds of the chief school administrator.

Table 13

STAFF SERVICES PROVIDED
BY COLORADO PROGRAMS

Service	# and % of Districts		Service	# and % of Districts	
Resource Information			Modified Working Conditions		
Professional Library	6	67%	Planning Time	6	67%
Curriculum Guides	9	100%	Reduced Load	6	67%
			Added Aides	2	22%
			Extra Pay	1	11%
Professional Development			Administrative Training		
Inservice	8	89%	Vocational	5	56%
Visitations	6	67%	Special Education	2	22%
Consultants	7	78%	General Education	2	22%

Instructional Services. Table 14 illustrates instructional services provided by Colorado vocational programs serving the handicapped. Services are listed in five areas: (1) staff resources; (2) material resources; (3) methodology; (4) evaluation method; and (5) evaluation focus.

Five or more of the nine Colorado programs provided academic, remedial, special education, psychological, clerical and instructional aide services. No programs reported the use

Table 14

INSTRUCTIONAL SERVICES PROVIDED BY COLORADO PROGRAMS

Approach	# and % of Districts		Approach	# and % of Districts	
Staff			Methods		
Academic & Remedial	5	56%	Performance Objectives	6	67%
Special Education	6	67%	Team Teaching	6	67%
Medical, Social Psychological	7	78%	Multi-Age Grouping	5	56%
Community Counseling/ Coordination	0	0%	Field Activities	8	89%
Clerical	5	56%	Evaluation Method		
Instructional Support Staff	5	56%	Competitive Grades	6	67%
Materials			Non-Competitive Grades	3	33%
Multi-Sensory Equipment	7	78%	Norm Testing	4	44%
			Criterion Testing	5	56%
Individualized Media	8	89%	Report Cards	8	89%
Special Seating	3	33%	Parent Conferences	7	78%
			Evaluation Focus		
			Student Progress	7	78%
			Program Results	7	78%
			Student Follow-Up	7	78%

of community counseling services. While multi-sensory equipment and individualized media were employed by seven and eight of the nine districts respectively, only three programs reported the use of special seating practices.

Almost all districts utilized field activities as a program strategy, and one-half or more reported the use of performance objectives, team teaching and multi-age grouping.

The most popular grading practices proved to be competitive grades, report cards and parent conferences. Criterion-referenced testing also was present in more than one-half of the Colorado districts, but less than half reported the use of non-competitive grades. Few districts relied on normative-based testing.

The focus of evaluation was evenly balanced in Colorado districts among the criteria of student progress, program gains, and student success after graduation.

Community Interactions. Community relationships practiced by Colorado vocational education programs serving handicapped students were reported under the headings of: (1) identification of handicapped vocational needs; (2) interagency coordination; (3) community services; and (4) community involvement.

As shown in Table 16, all but two programs recruited handicapped students and assessed community employment needs. A great majority also maintained coordination with area vocational rehabilitation, special education and employment agencies.

More than half of the Colorado programs provided the community services of parent visitation and counseling, employee education on hiring the handicapped, and information agency service networking. Little community direct involvement in school vocational programs, however, was reported in the Colorado sample. About one-half of the reporting districts utilized parents and students on advisory committee memberships, but few included members of the business community and none maintained formal legislative relations.

Table 15

COMMUNITY RELATIONSHIPS AND
INTERACTIONS REPORTED BY
COLORADO PROGRAMS

Activity	# and % of Districts		Activity	# and % of Districts	
Identification			Community Services		
Recruitment	7	78%	Parent Visitation	6	67%
Needs Assessment	7	78%	Employer Education	5	56%
Interagency Coordination			Agency Service Network	5	56%
Vocational Rehabilitation	7	78%	Community Involvement		
State Employment Service	7	78%	Industry Advisory Committee	2	22%
Special Education	7	78%	Parent/Student Advisors	5	56%
			Legislative Relations	0	0%

Facilities. Table 16 shows the facilities modifications provided in Colorado vocational programs to improve opportunities for handicapped students.

Two-thirds of the programs reported modifications in entry-exit, doorway, and parking facilities to accomodate the handicapped. Five districts installed handrails and non-slip floors.

Less than one-half of the Colorado districts modified lavatories, drinking fountains and telephone facilities in recognition of handicapped student needs. Only two districts installed sensory direction mechanisms or alarms, and four districts reported an adaptive work environment.

Table 16

FACILITIES PROVIDED BY THE COLORADO PROGRAMS

Facility	# and % of Districts		Facility	# and % of Districts	
Ramps, Doorways, Parking Modifications	6	67%	Lavatory, Fountain and Telephone Modifications	4	44%
Handrails, Non-Slip Floors	5	56%	Adaptive Work Environment	4	44%
Sensory Direction and Alarm Mechanisms	2	22%			

Colorado Program Interviews

As was accomplished with a sample of exemplary programs, P/M/S conducted onsite interviews with the directors of five randomly-selected Colorado vocational education schools. The major topical questions repeated those employed in the exemplary program interviews. The specific questions and summarized program responses are as follows:

Question #1. "What percentages of the studerts of this center are handicapped?"

No Colorado institution had any percentage figures readily available. One program estimated that around forty students fell in the handicapped category. Another said that because no special classes are available for handicapped as such, it was impossible to ascertain numbers. One program indicated that vocational rehabilitation had referred students to their centers, and that some students with physical and speech impairments were enrolled. The general picture was one of unawareness and little knowledge concerning handicapped students.

Question #2. "Are there any special provisions made for serving the handicapped?"

One institution, in a newly constructed facility, had no special facilities for physically handicapped students, such as wheel chair ramps or customized drinking fountains. One institution had a coordinator charged with assisting with the programming for educable mentally retarded students. There were also two other staff members paid out of Part B Vocationally Handicapped funds. No programs reported any speical transportation facilities for the handicapped to come from home to school.

Question #3. "Has the building been designed to accomodate the handicapped?"

One facility had special elevators and a golf cart that could be used by non-ambulatory handicapped to travel between classes within the building. Only one program visited claimed to be completely free of architectural barriers.

Question #4. "Where do students who are blind or deaf receive their vocational training? Who is responsible for ensuring that their career needs are met?"

One center indicated that there were no deaf and blind students enrolled, and that within the school district, these students are served by the Special Education Department. Another stated that the deaf are served by a neighboring school district and that the blind generally remain in academic classes within the district's regular high schools.

Question #5. "How do vocational instructors accept the handicapped?"

Several program directors claimed that their teaching staffs fully accept handicapped students. One mentioned that the coordinators of mentally handicapped programs help instructors to serve these students. Another director pointed out an interesting situation in the Nurse's Aide classes, in which many students planning on later training for professional health field careers enroll. This enrollment raises the academic standards of the Nurse's Aides classes, and causes some handicapped seeking a terminal career in that field to feel somewhat out of place. Again, the teachers with industry experience seemed more accepting of the handicapped than did those with academic backgrounds.

Question #6. "What courses are open to handicapped students? How are student interest, abilities, and training potential assessed?"

One institution indicated an open enrollment-type policy. Another stated that while most courses are open to all students, instructors have considerable voice in student selection. Several instructors expressed concerns regarding the suitability of certain types of handicapped students for their programs. An example of such a case is the area of cosmetology. Vocational instructors generally held that since handicapped students often would be unable to meet full licensure qualifications, it represented a waste of time to enroll these persons.

Question #7. "What factors do you feel are important in expanding the vocational program to be more open to the handicapped?"

Three directors cited a need for closer contact with district special education personnel. All agreed that more information was needed on how to better serve the handicapped.

Question #8. "How do you measure program success?"

Only one school responded, "By the fact that the students are here." (Students had the choice of attending the vocational program or remaining in their regular high school.)

Following the structured interview, one program director requested information concerning the construction of wheelchair ramps, and indicated that this facility modification was to be implemented. Further informal discussion with the five program directors brought out that no school had established a parent or employer advisory committee to provide information on meeting career needs of the handicapped.

All programs indicated an interest in serving handicapped students and a willingness to improve these services. These findings implied that part of the solution to serving handicapped students more effectively lies in the provision of more information, and the stimulation of greater awareness among vocational education staffs.

Summary of Colorado Survey Results

The Colorado programs appear to have significant numbers of handicapped students enrolled, as evidenced by their numbers in relationship to total enrollment. The Colorado respondents also appear to offer most of the services identified on the survey instrument, with the exception of mobility aid availability, extra teacher aides, pay increments for teachers of the handicapped, the presence of school-community coordinators, the use of employer advisory committees, and attention to legislative liaison activites. While it is not possible to make definite judgments due to imcompleteness of data and small number of returns, there is some evidence that while many handicapped students are identified and served by vocational education programs, they are being excluded from certain programs, such as those in the trade and industrial education field.

A likely conjecture regarding underlying reasons for Colorado program exclusions is teacher reluctance to allow handicapped students in vocational classes. If this is the case, it may well be that stereotypes regarding handicapped students as likely to cause accidents while using equipment, or inability to profit by instruction, are present among certain teachers. While this possibility is not provable from perusal of the survey research instrument, data collected during the instructor survey and the on-site interviews lend credence to such a contention.

The Colorado data also seem to indicate that handicapped in all categories of impairment and all degrees of impairment severity have been identified and are being served. This finding supports a contention that no large handicapped category, male or female, has been overlooked or refused service by the programs surveyed. It does not indicate that all handicapped are being fully or amply serviced, however, as data do not exist regarding total numbers of potential students in each category of impairment and severity. This finding is an encouraging sign, but further research is needed before claims may be made for the magnitude of its importance.

Comparison of Exemplary And Colorado Programs

In the comparative phase of this research study, data obtained from both the exemplary program and Colorado surveys were examined for similarities and discrepancies. Summaries of this analysis are presented in categories which reflect those utilized earlier in the report, and deal with both questionnaire results and findings of the onsite program interviews.

Comparison of Student Characteristics. Within the exemplary programs which integrated handicapped students into regular vocational classes, total vocational program enrollment, both handicapped and non-handicapped ran almost equally divided between males and females. This contrasted to the Colorado programs investigated, where males greatly outnumbered female students.

In the exemplary programs, male handicapped outnumbered female handicapped two-to-one, while in Colorado the male handicapped were almost equal in numbers to female handicapped students. Ten percent of the exemplary vocational student population had handicaps of some kind, whereas 15 percent of the reporting Colorado vocational program population had some handicapping condition. These data seem to indicate that Colorado compares very favorably to other parts of the nation in serving handicapped students within vocational education programs, and in providing equal vocational opportunity for handicapped females as compared with males.

Comparison of Handicapped Enrollment. When percentages of vocational students having mild, moderate, and severe handicaps are compared, the exemplary program percentages are 12%, 80% and 8%, respectively. Comparable figures for the reporting Colorado districts are 29%, 37%, and 34%. This finding may mean that the Colorado programs do a better job of identifying the mildly handicapped, and of retaining more of the severely handicapped in the programmatic mainstream. Interestingly, the exemplary programs reported mental handicaps as the largest impairment category at 56%. Among the Colorado student populations surveyed, mental handicaps ran third at 13%, behind learning disabilities (37%) and hearing disabilities (17%). This finding indicates that the Colorado programs do a better job of identifying learning and hearing disabilities than do the exemplary ones, but it could also mean that the exemplary districts direct more students in these categories into special programs not covered by this study.

Comparison of Coursework Availability. Among the exemplary programs, trades and industry classes enrolled the highest numbers of handicapped students, with business and agriculture sequences next, and technical, home-making, and distributive education enrolling the fewest handicapped. Comparing this trend with the Colorado situation, very little deviation was noted. While exact percentages varied somewhat, the same overall tendency appeared. Several hypothese to explain the existence of this trend suggest themselves, and would make excellent further research topics. An interesting speculation regarding this finding is that it seems to be refuting a frequently-heard teacher concern reported in this study's interim report--namely, that it is "dangerous" to include handicapped students in vocational classes where machinery and various equipment operations are involved. However, these data could be misleading, as evidence exists that some handicapped are being excluded in Colorado from these programs, and those that are admitted represent a form of "tokenism."

Comparison of Student Services. Comparison of student services in the eighteen exemplary and nine Colorado reporting institutions revealed close similarity. Virtually all of the institutions surveyed offered all services listed on the research questionnaire instrument except in the categories of prosthetic and mobility aides and employer counseling. Here, 53% of exemplary but only two of the nine Colorado facilities had such aids available to students. About one-half of each group offered employer counseling services. Based on the research returns available, it appears that Colorado vocational programs serving the handicapped compare favorably in student services availability with the exemplary programs in all areas except the availability of prosthetic and mobility aids.

Comparison of Staff Services. The staff services provided by exemplary programs ranged from a low of 18% receiving additional pay to highs of 94% in the curriculum guide and special education consultant availability categories. Colorado districts appeared to follow this pattern closely. Only the additional pay and additional teacher aide categories fell below 50% for both groups. The composition of professional and non-professional instructional staffs did not differ markedly for Colorado as opposed to the exemplary programs, except for the area of home/school and community/school coordinators. Here, while several exemplary programs reported such staff members on their payrolls, no Colorado respondents so indicated. Further research is needed to verify whether this is a deficiency of Colorado programs, or whether this coordinating function is being handled by such other staff members as counselors and social workers.

Comparison of Instructional Services. Comparison of the instructional materials, methodology/organization, evaluation/reporting, and facilities areas was made difficult by non-applicableness indicated for some items by Colorado respondents. Exemplary program percentages appear higher in the staff resources of special education, while Colorado indicated a greater use of psychological and clerical support. Both groups provided the material resources of multi-sensory equipment and individualized media in near equal measure.

Exemplary programs held a decided edge over Colorado schools in the use of performance objectives, team teaching strategies, multi-age grouping and field-centered learning activities.

Little difference was noted in the use of evaluation procedures.

Comparison of Community Relations Activities. When the external environment activities are considered, the favorable response percentages for both groups rated highly, response running from 76 to 94 for these items. In community relations, most Colorado programs indicated parent visitations were undertaken, but few if any of the other services were offered. Exemplary program percentages ran from 82% for parent visits and job employment advisory committees, to only 18% for the existence of a legislative relations committee. Again, due to fragmentation of responses, it is probably safe to conclude that in only one category, existence of an employment advisory committee, does one group appear to be significantly different from the other. The advantage in this case is awarded to the exemplary program group.

Comparison of Facilities. Both Colorado and exemplary programs indicated the wide use of modified ramps, entry-exit, and parking facilities. Colorado districts were more likely to give attention to stairways and floor coverings, while exemplary respondents were far more likely to provide lavatory, drinking fountain and telephone modifications. Both groups paid little attention to the need for sensory direction and alarm mechanisms.

Comparison of Exemplary Program and Colorado Interview Findings. If any single comment can summarize the twelve visitations and what was learned from the interviews, it is the need for "awareness." First of all, both the exemplary and Colorado programs evidenced an awareness gap in fully identifying their handicapped student populations, as born out by a general inability to cite definite enrollment statistics. It could well be that more work is needed in identifying and programming handicapped students, especially those whose impairment is not fully obvious. Two further areas of relative deficiency among Colorado programs, when contrasted with exemplary respondents, appear to fall in the areas of teacher attitude toward inclusion of handicapped students in regular vocational classes, and liaison with parents, employers, community representatives and recent graduate for input and evaluative purposes. Most, if not all of the sampled exemplary programs followed regular procedures for assisting teachers to more fully understand and deal with the ramifications of various handicapping conditions. It appeared that the instructional staffs of the exemplary programs had more positive attitudes toward inclusion of the handicapped in their classes, and felt more at ease in working with these students. A similar awareness on the part of the exemplaries was found in their systematic inclusion of parents and employers in both planning and evaluative efforts. Likewise, the opinions of recent graduates appeared to be elicited and valued more by the exemplary programs than by those visited within Colorado.

These general observations, derived after conducting twelve onsite interviews, lend support to the findings of the questionnaire survey research effort. The interviews proved a valuable activity in conducting the research project, and provided new insights for generating guidelines for the modification of vocational education programs serving the handicapped.

SECTION 5

STATEWIDE CONFERENCE DISCUSSION OF PROJECT FINDINGS

In order to synthesize survey findings and to orient recommendations in a Colorado perspective, a state-wide working conference was convened during June, 1975. The P/M/S Corporation staff met with 38 persons concerned and involved with vocational education of the handicapped. Conferees were drawn from the ranks of district-level vocational and special education directors; counselors, classroom teachers, and vocational instructors; state officials from departments of vocational education, special education and vocational rehabilitation; parents of handicapped students; and high school students themselves. A listing of conference participants may be found in the Appendices section of the report.

The Conference was keynoted by a prominent young paraplegic attorney who also served as Chairman of the Colorado State Advisory Council (Governor's Committee) on the Handicapped. The views of the keynoter and the conference proceedings were covered extensively by the Colorado news media. In addition to the press clippings displayed in the Appendices section of the report, two Denver television stations covered portions of the sessions, and an all-news format radio station assigned a reporter to the opening conference session.

During initial meetings the listing of elements characterizing exemplary programs serving the handicapped, contained in Section 3 of this report) was provided conferees as a basis for discussion activity.

The specified objectives of the conference were targeted beyond the creation of public awareness of the need to improve services to handicapped youth. The conference was designed to critique findings of the study and to develop concrete suggestions which not only might serve to bring about immediate upgrading of vocational services to the handicapped at the local level, but also could be of benefit in the long-range improvement of services for high school-age handicapped youth of Colorado and of the nation.

The conference participants succeeded in drafting a series of practical suggestions for improving vocational education for the handicapped. A general consensus evolved during the sessions was that the conference not only had focused attention on barriers, but also had identified practices and solutions which could be implemented by participants at the local level immediately without additional resources or Legislation.

The conference produced a formal report of its efforts. The document which follows contains official conference recommendations which were published and provided to all participants. The recommendations also were disseminated to state agencies, associations and individuals involved in serving

Colorado handicapped citizens. Findings of this conference represented the final product of data collection activities conducted during the project, and proved a significant step in realizing a set of comprehensive guidelines for the improvement of services to meet vocational needs of the handicapped.

The report of conference findings is presented in three parts: (1) Barriers to Serving Vocational Education Needs of the Handicapped; (2) Issues and Actions for Program Improvement; and (3) Strategies for Implementation.

WORKING CONFERENCE:
CAREER AND VOCATIONAL NEEDS
OF HANDICAPPED CITIZENS

June 17-18, 1975
Metro Denver, Colorado

As a part of its federally-sponsored study of vocational education for the handicapped in Colorado, the P/M/S Corporation recently sponsored a Denver metropolitan area working conference of state, regional and local special and vocational educators, parents and handicapped citizens. This preliminary report presents a summary draft of the conference objectives and results.

Conference Goal

To develop guidelines for improving the delivery of vocational education programs and resources to meet the vocational needs of the handicapped.

Major Objective

Develop a list of recommended guidelines in the areas of Administration, Resources and Programming to insure achievement of the following goal:

"Assure that by 1977, every handicapped child who leaves school has had career and vocational training relevant to the job market, meaningful to his career aspirations, and realistic in terms of his future potential.

Conference Results

The working conference on the development of guidelines resulted in three reports: (1) the identification of problems and program barriers to serving the vocational education needs of handicapped persons; (2) the development of guideline statements for state and local action; and (3) the preparation of a list of strategies to aid in the implementation of guidelines.

These three topics are used as headings in the following report.

PROBLEMS AND BARRIERS TO
SERVING VOCATIONAL EDUCATION
NEEDS OF THE HANDICAPPED

Introduction

Identification of constraints hampering the development of exemplary programs may well serve as a basis for program improvement. The statements contained in this section were developed at a working conference involving parents, school counselors, special education and vocational education administrators and teachers, agency representatives from Vocational Rehabilitation, Special Education and Vocational Education and Employment and handicapped individuals. Participants sought to identify factors which served to constrain the delivery of vocational services or the development of appropriate programs for the handicapped within their own communities, school districts, agency or departments. The statements represent a consensus of major reasons cited for the low level of performance evidenced in vocational services to the handicapped.

Twenty-nine barriers which inhibit effective vocational-related services to handicapped students were identified by conference participants. The statements are grouped within five areas: (1) awareness/acceptance of the handicapped; (2) social-interpersonal relations; (3) program administration and funding; (4) school curriculum; and (5) counselor/teacher problems.

Awareness/Acceptance

1. Inadequate awareness of the potential of the handicapped to participate effectively in the world of work.
2. Inadequate awareness of the degree or magnitude of the problem, i.e., number of handicapped that are vocationally under-served, underemployed, or unemployed.
3. Inadequate exposure to, understanding and/or acceptance of the handicapped on the part of educational staff, peers, and the community.
4. Assumption by non-handicapped individuals that they know what it is like to be handicapped and what the needs are and how these may be served.
5. Inadequate understanding of differences of handicapped; their strengths and weaknesses and how best to meet particular needs.

Social-Interpersonal Relations

1. Personal discomfort of non-handicapped when around handicapped persons.
2. Social-emotional immaturity of the handicapped.
3. Inappropriate inter-personal behavior, i.e., too much sympathy for the handicapped, fear of not doing "the right thing" for the handicapped, and the over protectiveness of parents.

4. Lack of societal acceptance of the handicapped, i.e., fellow workers, employers and communties.
5. Lack of social survival skills included in handicapped students' general education programs.

Administration/Funding

1. Lack of district plans for inter-department cooperation and service coordination, including use of personnel, financial and material resources.
2. Non-awareness on the part of the community and educational personnel of state and local agencies of the many resources available to serve handicapped.
3. Local administration lack of understanding regarding state and local resources and funding available for program improvement.
4. Lack of agency articulation and coordination of different services and programs from state level to local level.
5. Conflicting agency demands and red tape in obtaining services for handicapped students or program implementation.
6. Lack of communication between schools and non-school agencies.
7. Utilization of scarce resources for the funding of categorial programs for the specific handicapping conditions, i.e., EMR.

Curriculum/Programming

1. Lack of early and continuous planning toward employability and students long range goal.
2. Lack of student exposure to career alternatives and vocational opportunities.
3. A lack of inter-department communication of program definition and procedure for implementation of services.
4. Poor communication between parents and school officials in meeting basic student needs.
5. Programs designed with one type handicapped in mind or over-reliance on a single program model (WES) to serve handicapped students.
6. Lack of meaningful social and pre-vocational skill development.
7. Lack of effective models for rural programming.
8. Program designs, courses, and classes lack flexibility to meet individual needs of handicapped students.

Counselors/Teachers

1. Lack of counseling for career planning or vocational assessment of handicapped.
2. Counselors lack of knowledge of handicapping and employment conditions and how to help student and vocational teachers lack of knowledge of industry and job requirements.

3. Inability of teachers to identify non-visual handicapped or to obtain and seek assistance in serving students.
4. Inadequate background of persons educating the handicapped either in terms of assessment of student needs, development of strategies for instruction or in evaluating learner progress.

ISSUES AND ACTIONS
FOR PROGRAM IMPROVEMENT

Identification of barriers to serving vocational needs of the handicapped, served as a basis for the development of action statements for state and local program improvement. The statements are organized with the three areas of Administrative Resource, designed to be operable within present limitation of legislation and financial resources and Programs.

Administrative Issues

1. State Level
    1.1 Develop a state plan for the handicapped which includes meeting their educational, career and vocational needs from birth through the age of 21 years.
    1.2 Provide for the development of a comprehensive educational, vocational and rehabilitative service delivery system which includes state and local inter-agency cooperation and coordination.
    1.3 Establish functional criteria of eligibility for agency services in addition to state and federal classification systems.
    1.4 Identify state agency roles and responsibilities in serving school-age handicapped students.
    1.5 Establish a clearing house for the collection and dissimination of information on resources, programs,

occupational information and instructional materials for strengthening handicapped vocational education programs.

1.6 Establish an information system for monitoring student career and vocational progress and/or reporting vocational education services and system accountability.

1.7 Charge the Colorado Department of Labor and Employment as the responsible agency for developing employer awareness of handicapped capabilities, and monitoring employer compliance with the equal rights provision of the Vocational Rehabilitation Act.

2. Regional/Local Level

2.1 Provide that every special education administrative unit, area vocational school and community college designate a coordinator with responsibility to oversee the vocational/career needs of school-age handicapped.

2.2 Require every district, special education administrative unit, community college or area vocational school to establish an advisory committee or a designated sub-committee to advise the agency governing board and administration on vocational needs of the handicapped.

2.3 Establish a state liaison person within each state planning region who will be responsible for conducting preliminary manpower need assessments, for identifying employment opportunities and for expediting service to the handicapped and to employers of the handicapped.

Resources

1. Funding

    1.1 Require that federal funds for serving the vocational needs of the handicapped be used to supplement and not supplant local and state support.

    1.2 Require that federal funding for support of vocational programs of the handicapped be matched by state and local funds at a ratio equal to that for non-handicapped students.

2. Agency Services

    2.1 Specify that the Colorado Department of Education, Division of Special Education, be the agency responsible for determining the existence of a handicapping condition as this affects all school age children of the state, and to assist the Colorado Vocational Education and Vocational Rehabilitation Departments in referrals, assessment, staffing and determining student programming and service eligibility.

2.2 Declare all institutions, community centers and sheltered workshops serving school age handicapped children to be part of the state public school system and eligible for federal vocational funding.

2.3 Provide for a state coordinator to direct interagency services to handicapped school age children enrolled in vocational programs.

2.4 Establish guidelines for eligible funding of programs or service meeting the vocational needs of the handicapped, and direct that state personnel assist local districts to develop programs for the use of funds from the Vocational Education, Special Education, and Vocational Rehabilitation agencies of Colorado.

3. Personnel

3.1 Each school district individually/or as a member of a Board of Cooperative Services should provide for career education, pre-occupational experience, counseling, and vocational training of all handicapped youth enrolled.

3.2 School Counselors, Vocational Educators or Rehabilitation Specialists should be utilized in determining the career interest, aptitude or abilities of handicapped students prior to their placement in Vocational Education Programs.

3.3 Vocational youth groups should be formed to provide handicapped students experiences in social inter-action, leadership roles, organizational development and skill demonstration and competition activities.

3.4 Provide for inservice or pre-service training for all secondary vocational teachers, vocational counselors and industrial arts teachers in serving the handicapped.

4. Community/Parents

4.1 Enlist local community agencies and organizations in providing financial aid, community or program support, informational services, training facilities and resources for handicapped vocational education.

4.2 Enlist employer groups and union leaders in establishing proficiency norms, training sites, industry teachers, and occupational information for the handicapped.

4.3 Enlist parents of handicapped students in serving on advisory committee and advocate committees, and in assisting with parent/student counseling tasks.

Programmatic Issues

1. Needs Assessment

   1.1 Require local districts to conduct annually a census of handicapped children receiving vocational education services, and the nature of the services; to report the number of unserved students eligible for vocational services; and to specify reasons for any lack of services.

   1.2 Require each district, area vocational school and community college to include in its vocational plan information on occupational employment opportunities in its regional service area by major industry, career field, and the presence of an affirmative hiring plan for the handicapped.

   1.3 Require the State Department of Education, Department of Vocational Education and Vocational Rehabilitation to identify vocational service to the handicapped person of school age, including the number served by handicapping condition, by age, the services rendered and the end-of-year change in status regarding vocational training.

   1.4 Require that student assessment be on the basis of functional or programmatic needs as related to educational, vocational or rehabilitative conditions.

2. Instructional Program

   2.1 Authorize career and vocational instruction for handicapped students at an early age in order to overcome the effects of limited career awareness and experiences of students.

   2.2 Authorize vocational personnel to provide support services to regular and special education staff personnel in their conduct of career or pre-occupational courses for the handicapped.

   2.3 Require that all regular vocational programs reserve 10 percent of their enrollment slots for handicapped students in need of special assistance and services or an adaptive curriculum.

   2.4 Authorize "non-tuition" status for all handicapped enrolled in secondary, adult, area or community college vocational programs, whether for training or retraining, through the age of 21 years.

3. Curricular Practices

   3.1 Programs

      3.1.1 Academic skills should be provided in special classes, regular classes, and in vocational programs as these relate to job skills.

      3.1.2 Career and Occupational explanatory instruction should be integrated into special and regular instructional programs.

3.1.3 Living skill experience should be integrated into regular and special education classes to facilitate social and vocational competence.

3.1.4 Vocational programs of a special, adaptive or regular nature should be operated to serve all handicapped students for training or retraining.

3.2 Student Services

3.2.1 Transportation from home to school, within schools and from school to work or training site should be provided handicapped students.

3.2.2 Tutorial and interpretation assistance for student or teacher should be available as needed.

3.2.3 Specialized equipment and materials for environment or curriculum modification should be provided handicapped students.

3.2.4 Support personnel should be available to facilitate classroom instruction for the handicapped.

3.2.5 Aides for meeting the personal physical needs of the handicapped should be provided.

3.2.6 Job placement/counselor placement specialists for the handicapped should be available on school staffs.

3.2.7 Establish Learning Resource Centers for handicapped students use.

3.3 Staff Development Services

3.3.1 Provide inservice or recertification programs to meet the competency requirements of all vocational instructions in serving special needs of the handicapped.

3.3.2 Provide inservice for administrators, counselors, and industrial arts teachers in understanding, accepting, and instructing the handicapped in career and vocational areas.

3.3.3 Provide specialized support service staff to assist vocational educators to improve the delivery of vocational services to handicapped, and to develop effective techniques in instructing the handicapped.

3.3.4 Establish Instructional Resource Centers for assisting Vocational Education staffs in developing ideas, techniques and knowledge on effective ways of serving the vocational needs of the handicapped.

3.3.5 Establish linkage between special education and rehabilitation programs for sharing the responsibility of advising relative to staffing handicapped programs, interpreting learning styles, and providing recommendations on materials and resources.

3.4 Environmental Services

3.4.1 Inside Environment

3.4.1.1 Provide for easy access to parking lots, school facilities and vocational program areas by handicapped students.

3.4.1.2 Provide for personal comfort of the handicapped in the arrangement of water fountains, restrooms, telephones, and elevator modifications.

3.4.1.3 Provide for safety of the handicapped including adaptive exit doors, directions marked in braille and both sound and visual alarm systems.

3.4.3 Outside Environment

3.4.2.1 Provide for liaison and supervisory services to handicapped students and their employers for a period of 12 months following graduation, completion of the training program, and job placement.

3.4.2.2 Provide for pre-service instruction of employers to facilitate student on-the-job acceptance, assistance and success.

3.4.2.3 Develop a model delivery system for serving the vocational needs of the handicapped in rural or remote areas.

3.4.2.4 Provide for a mobile or itinerant assessment specialist in vocational assessment of the handicapped for rural-remote areas.

3.4.3 Services to Students' Family

3.4.3.1 Provide for a comprehensive program of service (include emotional, financial, education, and respite services) to the handicapped student's family when needed.

3.4.3.2 Establish the public school as the advocate agent of all services to school age children and their families.

3.4.3.3 Consider the family unit when identifying the service needs of the handicapped student.

STRATEGIES FOR IMPLEMENTATION

Conference participants developed a preliminary list of program improvement strategies. The compilation of strategies, each with a general application, is as follows:

1. Conduct an active parent information and outreach program for recruiting handicapped students to vocational education programs.
2. Develop an advisory committee involving employers, special education parents and students to insure handicapped students are assisted in developing job satisfaction and economic independence.
3. Conduct a school and community assessment on the vocational needs of the handicapped.
4. Develop district-wide goals for adoption by schools on vocational and career services for handicapped.
5. Assign each secondary handicapped student to one vocational teacher to serve as his or her advocate (to insure that vocational/career needs are identified, programmed, and to monitor program progress).
6. Require that vocational education or guidance staff conduct a vocational assessment on each handicapped student at age 14, 16, 18, regarding career interest, aptitude, and occupational potential.

7. Require that a career and vocational training plan be prepared annually by vocational education and special education for each handicapped student at age 16, and that the parent be required to participate in and approve the plan.
8. Establish all handicapped students as clients of vocational rehabilitation at age 16 or 18 for vocational or career counseling and training.
9. Provide for career and pre-vocational exploration for all handicapped at an early age.
10. Require vocational education to prepare an annual census of handicapped students in training, in employment and progress of students towards vocational goals.

SECTION 6

FINDINGS AND CONCLUSIONS OF THE REPORT

Both general and specific findings and conclusions have been summarized from data obtained in conduct of this study. Much of the content on data and agency service barriers will prove neither new nor startling, having been confirmed in previous research studies. What establishes their worthiness of reporting is their persistence; despite legislation supported by abundant federal and state dollars, results seem to suggest a national policy to ensure that the handicapped remain in economic bondage. New ground in the handicapped education arena was broken by the identification of exemplary vocational education program elements and the discrepancy between these criteria and actual Colorado practice.

Contents of this section are organized in three parts: (1) Informational and Agency Barriers to Serving Vocational Needs of the Handicapped; (2) Criteria of Exemplary Programs Serving Vocational Education Needs; and (3) Colorado Vocational Education Modifications Needed to Improve Services to the Handicapped.

PART 1

INFORMATIONAL AND AGENCY BARRIERS TO SERVING VOCATIONAL NEEDS OF THE HANDICAPPED

Identification of Need

The extent of need for vocational services to the handicapped often seems little understood by vocational educators. Neither the magnitude of the need nor the potential for service delivery appears to be fully appreciated by directors of vocational education at the state or local levels.

Nationally, the statistics on the handicapped are such as to cause alarm at the high rate of unemployment and under-employment. According to the 1970 census, which reflected a period of high employment in the United States, over 50 percent of the handicapped willing and able to work were unemployed. The projected unemployment rate reported by P/M/S, based on Colorado data for 1975, was approximately 70 percent.

While national figures convey a critical story of need, they fail to convey that in addition to a productive loss, the unemployment of the handicapped contributes to a social deterioration of the quality of life that affects not only the handicapped but all other citizens as well.

While statistics on unemployment and under-employment of the handicapped attest to a national problem, the fact remains that for the most part little is known of the actual need at the state or local levels. Vocational educators for the most part are unable to provide data on the extent of need, on current numbers served, on promising practices for improvement of services; or to advance solutions or positions regarding the role and responsibility of vocational education in terms of contributing to the career and vocational needs of the handicapped.

State Vocational Plans and Priorities

State plans for serving the handicapped are seldom plans or reflective of planning. Whie State Vocational Advisory Committees are charged with addressing the needs of the handicapped, the recommendations for the most part represent statements of compliance. Few state vocational plans contain or reflect such an overarching goal as the following:

> By 1980, every handicapped student of secondary school age shall have been assessed regarding his career and vocational interest and potential and a vocational plan developed to meet objectives,
>
> by 1980, every handicapped student in high school and up to the age of 25 shall receive vocational training or retraining to prepare him for gainful employment.

Acquiring or developing the skills necessary to become gainfully employed or productive remains one of the most likely avenues to independence for young adults. Developing these skills to meet social barriers and changing technology is the challenge facing vocational education. While fluxuating economic conditions may temporarily influence the rate of employment and the level of training required for employment, data from the U.S. Department of Labor indicate that 80 percent of all jobs do not require a four-year college degree. The traditional answer to the economic independence of many handicapped students has been to counsel them to seek college degrees, and, in many cases, to provide the funds for them to pursue baccalaureate and advanced programs. Today, we are witnessing a situation in which possession of a degree is little guarantee of employment, and may not actually return to the individual either job satisfaction or an adequate return on the investment.

For the non-handicapped student, choices as to what career to pursue depend largely on vocational interests and abilities. For the handicapped, the problem is compounded by the lack of career awareness, barriers to training due to physical facilities and social attitudes, employment restriction as a result of limited mobility or transportation, and a considerable measure of employer discrimination

Today, the right to an education and employment for the handicapped is being affirmed in legislation and judicial decisions through regulatory actions and statutory acts.

As a result, schools and employers are being required not only to enroll or hire the handicapped, but to modify their programs or facilities to enable the handicapped to benefit more fully from their availability.

Local Service Plans/Priorities

The relative importance attached to serving the vocational needs of the handicapped is influenced measurably by the lack of any direct reference that every effort be made to ensure that "all" handicapped be served with vocational skills prior to graduation. The absence of such a direct goal by the Bureau of Occupational and Vocational Education is not lost on state vocational directors who often regard the allocation and expenditures of their 10 percent Part B funds as completely fulfilling their state's vocational obligations to the handicapped.

Local directors seldom internalize the responsibility of serving this population and it is not unusual to hear local vocational instructors indicate that state vocational supervisors have warned them that enrolling the handicapped could have an adverse affect on their course completion and employment rates.

More often, the resistance to establishing any extensive commitments to the handicapped takes the "holy" attitude that to establish a goal of serving all the handicapped with vocational services is tromping on the rights of this group to pursue careers in non-vocational fields. Most often such positions are not even compatible with the statement being made in the same state for the non-handicapped population in which arguments are advanced as to the benefits of "every student" (except handicapped) graduating with a saleable skill.

Major Data Limitations

1. Manpower needs and job skill requirements:

   Statistics represent one of the major data sources in identifying training program requirements. Not only is it necessary to identify the technological field in which employees will find gainful employment, but also the range of job opportunities and the skills necessary to fill them is information vital to the development of vocational training programs.

   While employment statistics are included in state vocational plans, the accuracy and adequacy of the data for planning purposes are doubtful. Closer coordination between regional market projections, employment statistics and vocational training needs must be developed to assure that the data represent the current status of both training and employment manpower requirements, in addition to the skill requirements for employment.

   Many training programs fail to maintain currency with industry requirements. Perhaps a greater failing for the training of the handicapped in regular vocational programs is the introduction of non-relevant content, and the failure to reinforce the need for students to master entry level employment competencies.

2. Employment and Career Field Opportunities:

   Almost no data exist in terms of where the handicapped are employed, where they would most likely find employment, and what range of jobs persons with particular disabilities may be expected to perform. While many handicapped organizations promote the idea that possession of a handicapped is no qualification for holding a particular job, the situation today may require that employees prove that the handicapped cannot perform the job. Common sense suggests that we not encourage individuals to pursue particular careers which place the person at a disadvantage in the performance of the task.

   While equal access may be regarded as the key to employment for the handicapped, the fact remains that performance after employment may be the factor upon which support will be developed. The success of today's handicapped will be the basis for increased opportunities for other handicapped, and may well require that public vocational training include an on-the-job component.

Agency Coordination

Congress has endeavored to insure that the handicapped are given equal consideration in education, training and employment. Separate pieces of legislation either direct monies to the handicapped or earmark that a certain amount be set-aside to serve the handicapped. Other pieces of legislation mandate that the handicapped be accorded an equal opportunity to participate and benefit from employment services or benefits or that affirmative actions be taken as regards employment of this clientele.

To date, Congress has not required that state vocational plans relating to many of the educational services be coordinated to insure that services of one agency be tied in with the other agency. The result of this oversight is duplication, frustration, and inconsistency in delivery of service.

A prime example of existing problems is the tangle of definitional terms as to who is handicapped. Different standards exist for the Colorado Division of Vocational Education, the Colorado Division of Vocational Rehabilitation, the U.S. Bureau of the Educationally Handicapped and, of course, State legislatures. One could be handicapped for one agency and not the other but the truth is that vocational educators are less qualified than special educators to determine: (1)if a person is or is not handicapped; (2) how the handicapped may affect his learning or performance capabilities; and (3) the modifications necessary to best insure the handicapped benefits for education and training operations.

Conclusion for Part 1

State Vocational Plans should be required to provide evidence of and be based on:

1. Realistic manpower projections and job skill requirements.
2. Plans for coordination of varying agency service to the handicapped.
3. Priority services to the handicapped and plans for meeting the vocational needs of the unserved are supported by federal funds.
4. Inter-agency cooperation with Special Education, Department of Education, and the Department of Vocational Rehabilitation regarding the identification of the handicapped and the students vocational assessment for vocational training.
5. Requirements that vocational services for the handicapped provide for earlier and later training than for regular student -- include service to employees.
6. Establish success criteria of vocational program effectiveness in terms of job placements and retention rather than on program enrollment alone.

PART 2

CRITERIA OF EXEMPLARY PROGRAMS SERVING THE VOCATIONAL EDUCATION NEEDS OF THE HANDICAPPED[1]

Improving the delivery of vocational programs and services for handicapped students presents a challenge to vocational educators which will require imagination and innovative solutions. There exist three underlying premises for believing that the recommended improvements of existing services and programs are desirable. These premises are:

(1) Education appropriate to each child's reaching his or her maximum potential is a right. The courts and legislative bodies of this country are rapidly insuring that appropriate education for every child is no longer a whim or a privilege based on where a child happens to live or what that child's limitations are.

(2) It is cost-beneficial to society if every individual, including the handicapped, is helped to become as independent and productive as possible. Studies on the handicapped document that vocational programs return social and economic benefits to the

---

[1] Credit is givento Scott Parker, Management Analysis Center, Inc., Washington, D.C. and Oliver P. Kolstoe, University of Northern Colorado, Greeley for the conceptual content of this section. The findings support both personal observations by the author of many outstanding programs, and the empirical data obtained from the surveys of exemplary programs.

(3) There is a potential to achieve some level of productive work in every individual and there is a complementary desire and need in every individual to be socially and economically productive.

(4) To the extent that education and training can provide the means which allow individuals to achieve whatever level of independence they are ultimately capable of attaining, it is to the benefit of not only the individual but to society as well that this be achieved.

(5) The need for appropriate education is nowhere more acute than for the handicapped and, for the majority of that special population, vocational education is the most relevant education need.

Before proceeding to a description of the elements which characterize exemplary vocational educational programs serving the handicapped, it is necessary to identify three common failings of most programs organized to meet the vocational needs of this clientele. The programs often fail:

(1) To take advantage of or to solicit assistance from service groups outside the immediate administration of the program.

(2) To ensure that the curriculum and mode of instruction are relevant to the immediate job market and to the individual student's need.

(3) To prepare the outside work environment for the student as the student is prepared for a work environment.

The most effective programs do not fail in these areas and are able to provide services to meet vocational needs of students at support levels achievable by most school districts.

These conclusions and the various findings that led to them indicate the need for students, especially handicapped students, to be brought closer to the society in which they will ultimately live and work. They indicate a need for the development of guidelines to facilitate the delivery of vocational services to be provided students through the efforts of school professionals; parents; local, state and federal agencies; public and private groups.

They suggest a flexibility and continuity of program, in terms of curriculum, mode of delivery and length of training--tailored both to the students need and to the job opportunities available. It is not enough that vocational programs provide students with a skill. Handicapped students must be introduced to the social aspects of a working environment, aided in securing and holding a job and made aware of the probable need for mobility between jobs as the job market changes. If vocational education is to be responsive and effective, services for the handicapped must not only address the matter of vocational training but also the related concerns of underemployment and unemployment.

To achieve this end will require the involvement of vocational educators at every step of the process--from prevocational development to occupational training, from student assessment to community and employer education.

Description of Elements of Model Program

The elements to be described are for the most part conceptual rather than specific. They apply to vocational programs located within small school districts as well as large; to rural programs as well as those in urban settings.

Model programs serving the vocational needs of the handicapped are distinguished by the following elements:

(1) Attitude of Profession and Community and a Commitment to Handicapped

(2) Cooperative Inter-Agency Relationships

(3) Identified Needs and Established Goals

(4) Developed Procedures for Service Delivery

(5) Flexibility and Continuity in Programming

(6) Environments Designed with the Handicapped in Mind

Some of the more salient features of each element are described to provide guidance for those responsible for improving services to the handicapped and for understanding of the developed guidelines, which appear in the final section of this report.

Attitude

No single element best differentiates vocational programs accomplishing positive results for the handicapped, for those achieving far less, than the attitude of staffs and community. An effective attitude seems to be characterized by:

(1) Belief that the handicapped have the ability to profit from instruction and have potential.

(2) Belief that the handicapped can benefit from vocational training.

(3) Belief that students should not be required to fit training programs but that programs should be designed to serve students.

(4) Belief that vocational education has much to offer student educational development.

(5) Belief that resources outside one's agency must be tapped to serve handicapped population.

Ironically, in the more successful vocational education programs serving the handicapped, instructors, for the most part, had industry or commercial experience backgrounds rather than formal vocational or special education preparation. The acceptance of responsibility and commitment to the individual student, and including the handicapped learner, seemed a matter of course to instructors from the private sector. This does not imply that formal teacher preparation is counterproductive. It does imply, however, that attention must be addressed to what occurs or does not occur in teacher preparation programs which erodes belief in the capabilities of the handicapped, or develops in vocational teachers and others a reduced sense of belief in their abilities to serve exceptional children. The education ethic has led to misconceptions of what particular handicapped individuals are able to accomplish and has contributed to a lessening of understanding regarding the combination of abilities and skills necessary to obtain and hold a job. Limitations of the handicapping condition in an academic environment or classroom training setting frequently has little relationship with actual on-the-job skills needs or on-job productivity.

Cooperation/Coordination

Agency and individual cooperation at the state and local level characterized those vocational programs responsive to the needs of the handicapped. More often than not, such cooperation was the result of forceful state leadership or legislative mandates either to meet the needs of students or to improve the utilization of scarce resources. Cooperation and program coordination was characterized by joint program funding, dual teacher certification, cooperative funding of consultants and supervisors, and unification of both reporting forms and eligibility procedures.

Cooperation at the local level was manifested by information-sharing, and by the involvement of vocational educators in the staffing of handicapped students; of reliance on special education for diagnosis of handicapping conditions and student learning modelities, and on guidance or vocational rehabilitation personnel for assessment of the students vocational interest and potential. Cooperation at local district level involved the development of student vocational training plans with special education personnel and others as well as parents participating on behalf of the child.

Identification of Needs and Goals

The better vocational programs organized to serve the vocational needs of the handicapped invariably grew out of identified needs in the form of district, school or community-sponsored surveys of the handicapped student population, data on unemployment or adult handicapped, and present school efforts in terms of serving the needs of this particular group of students.

It is a matter or record that on a state or local level, few vocational and special education personnel fully realize the extent of unemployment and underemployment of the handicapped. In most communities and school districts, the total secondary and adult handicapped populations remain an invisible segment of the citizenry -- parts of which are known only to the special agencies who serve a categorical segment of the handicapped population and provide a specialized service.

While few vocational programs had written goals which addressed department priorities on personnel actions, the exemplary programs functioned as if guided by the following goal: "Insure that every handicapped student has received vocational counseling and/or training in keeping with his career interest, commensurate with his capabilities and matched with the future prospects of gainful employment."

Procedures for Service Delivery

A service delivery system geared to meeting the vocational needs of students who are handicapped is not fundamentally different than one designed to meet the individual needs of all children. Vocational programs characterized as responsive in terms of meeting the vocational needs of the handicapped were these which regarded the student as the client and the "raison d'etre" for the agency's existence.

Many of the school districts containing exemplary vocational programs organized student service delivery on a generic basis which systematically provided for:

1. Identification and intake procedures
2. Career exploration and skill development
3. Vocational planning and training
4. Job placement and employee/employer support.

In addition, the service delivery systems tended to address:

1. Instructional programs offerings
2. Services to staff and students
3. Personnel qualifications
4. Procedural systems for accountability.

Flexibility and Continuity of Programming

Perhaps equal in importance to attitude was the flexibility which characterized the curriculum and instructional approach of exemplary vocational programs. Flexibility did not imply a lessening or lack of standards. In fact, the reverse was more often true. (An example of inflexibility might be the vocational instructor who steadfastly refused to allow any student to remain in his program who could not successfully pass his written safety test) and justified his actions as thought in the best interest of student safety.

Program flexibility was most often characterized by:

1. Adaptations of enrollment procedures
2. Adaptations of instructional procedures
3. Adaptation of evaluation procedures.

Many examples could be identified. Among these were the open-entry/open-exist enrollment with students completing training based on their own rate of progress. Another example was reliance on use of experienced handicapped students to train others for the development of job sophistication.

In almost every exemplary program, instructional task paralleled industry standards. The teaching of employable work skills was derived from a task analysis of the job requirements. Another key factor was that eveluation utilized accepted industry criteria, e.g., time required to clean a room, to make a bed. Testing in almost every case involved performance measures with both oral and written evaluation measures only as back-ups.

Instructions for the handicapped followed the same sequence as for the non-handicapped, i.e., task or job understanding, skill development and testing, job placement and supervision. The difference between successful programs and those programs having less success is that each stage of training was planned for, and the desired competency level developed in advance. None of the stages were omitted and little was left to chance.

Environmental Adaptations with Handicapped in Mind

Environmental adaptations included the removal of physical barriers and the modification of facilities, the securing of support service systems and the adaptation of the working world in which the handicapped would be expected to work. Exemplary vocational programs were more likely to view barrier modification as relating to the total environment, and not limited to the training facility alone. Environmental adaptations include:

1. Physical Barriers

   Most of our old instructional facilities are not barrier-free. There may be little vocational teachers can do about some conditions. Unfortunately, however, many new facilities still are being erected without full consideration of the needs of the handicapped. The work of the President's Committee for the Handicapped and the work of the Committee for a Barrier-Free Society have done much to publicize the need to reduce man-made obstacles which prevent many handicapped individuals from conditions of free access, safety and comfort afforded the non-handicapped. There is written an old adage which states that facilities designed with the handicapped in mind can be used by the non-handicapped, but the reverse isn't true. Many exemplary vocational programs housed in older facilities were taking steps to widen doors, install ramps, designate parking access for the handicapped and, in general, provide for greater accessibility and comfort.

2. Support Systems for Instruction

A willingness and acceptance of responsibility may be the key to service, but as Bruno Bettleheim once remarked when asked what was needed in serving handicapped children, "Love is not enough." Vocational teachers need the services of special education personnel to supply information on what the handicapped can do as well as knowledge on how best to modify instructional materials and methodology to fit particular learning styles.

Not only is the above improtant, but we must recognize that special equipment including transportation to school and work station may be as important to the success of the vocational program as even the ability to master the work skill. Exemplary vocational programs did not operate alone. They inter-acted with departments outside of their own administration and with personnel from other departments. Resources including materials, inservice and information were fed into vocational education from special education, counseling, and vocational rehabilitation sources.

3. Outside Work Environment

Preparing the community and the employer to accept the handicapped openly may be as great a hurdle as is training the handicapped. Today's vocational teacher has the benefit of laws which make it illegal for employers holding government contracts to discriminate against the handicapped. Many state laws extend this to all employers. Vocational educators must become familiar with such legislation and be prepared to assist employers to comply with affirmative action requirements, or else be content to see the efforts be reduced to tokenism. It is the responsibility of the vocational educator to help sell his clients' productive abilities and to aid his client to realize his economic potential.

PART 3

COLORADO VOCATIONAL EDUCATION MODIFICATIONS NEEDED TO IMPROVE SERVICES TO THE HANDICAPPED

Findings and conclusions relating to Colorado vocational education programs are based on (1) the characteristics of exemplary programs serving the vocational needs of the handicapped: (2) teacher and program data obtained from Colorado surveys; and (3) pronouncements of the working confrence participants. In keeping with the purpose of the study, statements are intended to highlight the discrepancies between "what is" and "what ought to be" in terms of meeting the vocational needs of handicapped students in the State of Colorado.

1. The single most important barrier in terms of improving vocational services to Colorado handicapped students is the apparent fact that too few of the State's vocational teachers feel that handicapped students belong in their respective programs. This deficiency is not peculiar to Colorado but does contrast with survey data of exemplary programs. Visitations to vocational programs indicated that teacher reluctance was not as pronounced among programs already serving the handicapped as among those programs with little or no such experience.

2. A second finding distinguishing Colorado vocational programs from the exemplary programs was the scope of their outreach activities. Colorado programs demonstrated a less cosmopolitan orientation in terms of student recruitment, parent and community involvement, liaison with employers and follow-up of students. Colorado programs often failed to regard the student and employees as clients or the community as a resource in the recruitment, training and job placement process of handicapped students.

3. A corollary of outreach activities are those activities related to internal and external coordination. Colorado vocational programs showed less activities designed to bring about coordination than did the exemplary programs. Specifically absent were program interactions with special education teachers, academic high school staffs, and various pupil service personnel in the identification and assessment of handicapped students; in the development of personal and pre-vocational skills in present counseling services; and in vocational program development or advocacy of handicapped students' vocational needs.

4. An enhanced inter-action among various agencies serving vocational needs of the handicapped is

needed in Colorado. While the exemplary and Colorado survey samples did not permit comparisons on this dimension, numerous examples were uncovered of such diverse agencies as special education, vocational education sheltered workshops, state vocational rehabilitation, state employment offices and private groups being relatively oblivious of what the others were doing on behalf of the handicapped. Leadership and program advocacy often operate at the expense of the persons for whom the agencies were created to serve.

5. An issue of concern in terms of student eligibility and allocation of resources is related to the matter of who is handicapped. The problem is not unique to Colorado. Varying definitions and criteria of handicappness in terms of special education, vocational rehabilitation and vocational education add to both confusion and hostility on the part of persons needing services and those trying to meet these needs.

   The exemplary vocational programs did differ from the Colorado programs in assigning to special education the responsibility for determining handicappness.

6. While architectural barriers to the handicapped are receiving widespread attention in Colorado as

elsewhere, there still exist other environmental constraints which influence the delivery of vocational services to the handicapped. One is transportation to the training site and transportation to the job. Exemplary programs in many cases provided for these barriers to a far greater degree than did Colorado programs.

7. Exemplary vocational programs rated higher in auxillary services to the handicapped than did the Colorado sample. Significant among such services were job placement and employer support. While Colorado vocational programs reported a higher percentage of job placement than did other agencies also working in the placement field, their success ratio was below 50 percent. Colorado handicapped students invariably cited the efforts of friends and relatives as the most valued sources in job placement.

SECTION 7

GUIDELINES FOR IMPROVING VOCATIONAL PROGRAMS/SERVICES FOR HANDICAPPED STUDENTS IN COLORADO

In light of the many different data inputs which were received during conduct of this study, and after considerable synthesization of these fact, eight general guidelines have been formulated.

The guidelines designed to improve vocational programs and services to meet the vocational needs of handicapped secondary school students, are designed to achieve three outcomes:

1. Insure that handicapped students are brought into contact with vocational education services such that all students desiring and capable of benefiting from vocational training are afforded such an opportunity.
2. Insure that vocational services for the handicapped under Part B of the Vocational Education Act of 1968 are implemented on behalf of those students who because of their handicap are unable or unlikely to succeed in regular vocational programs without assistance.
3. Insure that vocational educational personnel develop the skills to utilize available knowledge and

resources in the community, other school departments and local and state agencies to provide for the career, vocational and employment needs of the handicapped.

Guidelines are organized around eight vocational educator service areas and are written in an accountability mode, that is, they are designed so that actions can be evaluated or tied to results. Guideline statements represented actions which local or regional school administrators, vocational directors and teachers could initiate to improve the delivery of vocational services to meet the needs of handicapped students in their communities.

Delivery:

1. Identification
   - who are the handicapped?
2. Assessment
   - what are the students needs - capabilities?
3. Vocational Education Planning
   - what are the student career goals and what steps to get there?
4. Programming and Instruction
   - what is to be learned, and how shall it be taught?
5. Personnel
   - who should do what, with what knowledge and help?
6. Resources and Services
   - what services to handicapped students are available, what is needed, and who will provide the services?

7. School/Community Coordination

   - how can we better inform the school/community about vocational needs and opportunities relating to handicapped students, and how may school/community services be coordinated effectively?

8. Environment

   - how can we modify the physical situation so as to facilitate learning opportunities for handicapped physical students?

Identification

Who are the handicapped? Definitions and classifications vary in federal and state statutes and serve to provide little guidance for student identification or programming purposes. It may be instructive to emphasize that the handicapped population is perhaps more diverse than that of students not handicapped. This fact alone makes it imperative that vocational educators consider the handicapped in terms of different individuals and not as homogenous groups.

Identification guidelines should facilitate delivery of needed services rather than serve to exclude students with special needs. Vocational Educators need to distinguish between an impairment and a handicap. Individuals who suffer the loss of an arm, leg, have reduced vision, hearing, speech, intellect or physical flexibility can truly be said to have an impairment. Whether that impairment constitutes a vocational handicap depends on the existence of ameliorative corrective aids as well as whether the environment in which the individual is to function has been modified to enable the handicapped to function at his full capacity.

Each state participating under Title VI of the Education of the Handicapped Act)P.L. 93-380) is required to develop a state plan for serving all handicapped students of school age. Such plans must spell out the procedures of identifying the handicap students and include provisions for both due process and non-discriminartory evaluations. Vocational educators at the state and local level, therefore, must become familiar with the contents of those plans insofar as they establish criteria and procedures for identifying and serving their handicapped clientele.

Identification Guidelines:

1. Enrollment of handicapped students in vocational education programs should follow the procedures for identification as established by provisions of state statutes, the state's Title VI-B EHA Plan, and the special education rules, regulations and procedures of the State Department and local districts. No student should be deemed handicapped as provided for under the federal Vocational Education Act of 1968 unless and until the provisions as set forth by the state special education rules and regulations have been followed.
2. Vocational educators should participate in the identification and staffing of all handicapped students ages 14 and above, but it should remain

the responsibility of the special education staff to implement the procedures and processess for identification and placement.

A student should not be considered handicapped for vocational education purposes unless: (a) the impairment constitutes a demonstrated barrier to participate and fully benefit from regular vocational instruction; or (b) the impairment is judged likely to prevent the student from benefiting or participating in regular programs of instruction and the student has had a vocational plan developed and approved within the special education program.

3. Vocational education (in cooperation with special education) should annually conduct a census of all handicapped student residents of the school district, ages 14-21, whether or not they attend school locally, to identify:

    a. Handicapped student in private, public schools, institutions, or colleges

    b. Handicapped students served in vocational education programs

    c. Follow-up of handicapped students employed

    d. Progress of enrolled handicapped vocational student in pursuit of career or vocational objectives

    e. Handicapped students not served or underserved in the vocational education areas.

Assessment

What are the students' needs? An assessment differs from an evaluation in that the latter seeks to determine the effectiveness of a solution whereas an assessment is concerned with a determination of the problem or need. Assessments can cover many aspects of a student's development including his social, emotional, physical, intellectual and vocational development. Vocational educators must be alert to the fact that social depreviation and developmental lags can impact on a student's ability to benefit from or participate in a regular vocational program of instruction.

An assessment of a students' vocational interest, abilities, and functioning levels along with his social-emotional and cognitive skills is a pre-requisite to the development of a comprehensive vocational education training plan.

State Vocational Rehabilitation Counselors represent the most effective means for obtaining the data and carrying out the desired student assessment functions. More importantly, it provides the basis for predicting whether the student is likely to achieve a vocational goal of being: (1) economically competitive individually; (2) competitive with help; (3) competitive vocationally but not academically; (4) non-competitive vocationally except under intensive specialization; and (5) trainable.

Assessment Guidelines:

1. Handicapped students should be assessed at ages 14 and 16, or at the 9th and 11th grades to determine whether the student is likely to succeed in regular vocational education programs or what specific program needs must be met.
2. Vocational education should serve as an advocate of each secondary-level handicapped student, to insure that pre-vocational and social living skills are identified and attended to in regular and special education programs prior to or concurrent with the receipt of regular vocational training.
3. Vocational education should collaborate with vocational rehabilitation personnel and special educators in assessing the handicapped student's vocational interest, appititude and skill proficiency as a basis for vocational planning.

Vocational Education Planning

The planning function should result in the preparation of a written plan which addresses the instructional program for each student based on the difference between known vocational and educational objectives and the assessed student vocational needs. The plan should evolve from the joint recommendation of special education, vocational rehabilitation, vocational education with the input and concurrence of the student and his parents.

The plan should address and contain information on the student's functional abilities, long term goals and short range objectives, identification of strategies and programs for achievement, and the assignment of responsibilities for review of progress or implementation.

Vocational Education Planning Guidelines:

1. Each handicapped student should have developed a written vocational and education plan developed by age 14 but not later than 16, which addresses vocational or career goals, program recommendations and special needs. The plan should be prepared with input from the student and parent and be approved by the parent. Parents of handicapped students should retain the prerogative of appealing limited vocational programming plans.
2. Vocational personnel should be responsible for reviewing handicapped students' assessment data, preparation and pre-vocational education plan. Vocational plans once written should be reviewed and evaluated annually, by the director of Vocational Education with the student and his parents or guardians. Student progress and the efficiency of the educational plan should be reviewed at this time.
3. Vocational plans should identify the proposed programs or experiences for students. The rationale

for the courses of action, the modifications or resources required for implementation, and changes in vocational education plans should be made with the written consent of the parent and the students' school administrator.

4. Vocational administrations should engage in periodic long-term studies to improve program effectiveness and efficiency. These include a multi-year, future-oriented plan, an attitudinal study of staff, students, parents, and other key groups, and follow-up of former students in terms of job success as a measure of program success.

Program Policy

It is desirable that handicapped youth should participate in vocational education programs to the fullest extent possible and in the least restrictive environments. A major effort to inform regular vocational educators of the desirability of this objective, as well as to provide them with factual information and skills needed for implementation should be undertaken.

Policy Guidelines:

1. Handicapped students should be educated insofar as possible, in regular vocational education classes.
2. An open enrollment, no-quota policy should prevail in all vocational programs vis-a-vis handicapped students.

3. A continuous entry/open exit enrollment policy should be used with handicapped students.
4. Vocational education opportunities should be made available equally to handicapped girls as well as boys.
5. Vocational education programs must be prepared to serve the mildly, moderately, and severely handicapped in regular vocational programs, in modified vocational programs, or in individually-designed programs.
6. Vocational education programs should accept responsibility for serving students with a range of handicapping conditions, be they physical, sensory, mental, learning disabilities, speech problems, or emotional-behavioral disorders.
7. In-school work experience and career exploration opportunities should be available and open to handicapped students.
8. Vocational curriculum development and revision must be an on-going and systematic process, and have as one of its purposes the meeting of handicapped students' career needs and job market requirements.

Vocational Programming and Instruction

Flexibility and continuity are key features in meeting the vocational needs of handicapped students. A district desiring to improve vocational service to the handicapped is more apt to do so if it adopts "personalized instruction" as the basic mode for serving or meeting the needs of the handicapped. To "insure that every handicapped student graduates with a saleable skill", effectively requires

- increases in the awareness and acceptance of the potential of the handicapped to participate effectively in the world of work and
- providing and designing programs and services to meet unique needs of handicapped students.

In theory, program flexibility is the easiest modification which can be achieved. In practice, it is often the most difficult. Flexibility in serving the handicapped requires change and adaption. Adaptions of enrollment procedures, instructional practices and methods of evaluations. Changes which are resisted becuase current practices have a long tradition.

Program and Instruction Guidelines:

1. Vocational instruction and programs should be competency-based and performance-oriented. Industry job requirements and standards should serve as a basis for determining learner proficiency.
2. Programming of students into pre-vocational as well as regular and special programs should be approached with consideration for the social skills

necessary for securing and holding a job, in addition to the acquisition and mastery of particular job skills.

3. Instruction should be on a continuous progress-open entry-open exit basis with individual job skills mastered, identified and recorded. Instruction should be provided to handicapped students prior to and following established age limits for regular students.
4. Vocational instructional programming should be on a continuium from vocational competitive in regular programs to non-competitive in special programs, in school settings, on-the-job or in a sheltered workshop environment.
5. Non-vocational plans should be developed to insure attainment of personal survival skills, mobility or travel skills, community service participation, recreational and health.
6. Performance-based instructional objectives criterion test, individualized instruction, and student performance contracts should be used in teaching or evaluating handicapped students in vocational education.
7. A regular assessment of students vocational progress should be made by vocational program administrations to guarantee educational opportunities and evaluate program effectiveness.

8. In grading handicapped students in vocational classes, two considerations are important: (1) students with a handicap should be compared with the performance industry standards and performance requirements of the real world; and (2) alternative forms of testing should be considered to pencil and paper tests along when evaluating the performance of handicapped students.

Personnel

Vocational education personnel should not be expected to develop the competencies required to substitute as special education personnel. They should be expected to be able to refer children in need of help, to utilize and request services from other agencies, to modify vocational instructional strategies, to meet student vocational needs and learning modalities, and to modify learning strategies or environmental conditions to individual needs of learners.

Together with vocational rehabilitation the special education, and other school support personnel, vocational teachers should be responsible for developing vocational training plans for each handicapped student and for implementing or recommending the experiences and courses which will facilitate student achievement of career and vocational goals.

Greater interaction must be achieved between vocational educators and their colleagues in special education and other education departments. Meaningful dialogue at a professional level can lead to greater exchange of student and programmatic information, and lead to individual student needs being more fully met by the overall educational system.

Personnel Guidelines:

1. Vocational school administrators should have an understanding of special education processes and should be familiar with procedures for the identification, diagnosis and staffing of handicapped students.
2. All vocational teachers should receive instruction in serving the handicapped as a pre-service or inservice requirement.
3. Vocational personnel should be expected to include as part of their professional responsibilities the development of goals and plans for individual program and department improvement of services to the handicapped.
4. Vocational personnel should develop the proficiency to prepare individual vocational plans for handicapped students on a performance objective basis and to include evaluation measures for reviewing plan and methodological effectiveness.
5. Each vocational or special education administrative unit should include as part of its service a dual certificated vocational special education person

to act as advocate for the vocational needs of the handicapped and to serve as liaison between special and vocational education in service delivery.

Staff Services:

1. Every vocational school serving handicapped secondary students should have a professional reference library and media center for staff needing information on various handicapping conditions.
2. Course competency objectives that deal with vocational needs of the handicapped student should be developed in each vocational program.
3. Work loads of teachers working with impaired students should be adjusted in one or more of the following ways: (1) additional planning time; (2) reduced student-teacher ratio; and (3) additional teacher aides.
4. Non-professional support staff should be available and assigned directly to given vocational instructors in all vocational programs enrolling impaired students: clerical persons, paid instructional aides, volunteer aides, community resource personnel.

Resources and Services

No single agency or department possesses all the resources to perform the services necessary to meet the vocational needs of the handicapped. The role of vocational education is to assure that the handicapped are afforded access to its services and secondly, that required resources to insure that the handicapped can benefit from vocational instruction and opportunities are made available. The latter implies cooperation with special education, vocational rehabilitation, guidance, adult education and regular education.

In particular, the use of federal Part B or regular vocational funds should be directed only to those purposes which: (1) relate to modifications of the mode of presentation, modification of the learning environment (equipment or facilities), use of additional personnel or devices which facilitate the integration of the handicapped into regular vocational programs; or (2) enable the handicapped to obtain training or demonstrate learned skills in a real job setting.

Resource and Service Guidelines:

1. Resource and service to meet the vocational needs of the handicapped should be at least equal to those provided the non-handicapped, i.e., the level of state and local support for the vocational needs of the handicapped shall not be less than that provided the non-handicapped.
2. State vocational education directors should accept the responsibility for insuring the distribution of Part B funds based on local district need and student enrollments.

3. Resources availability from local, state and federal sources to meet the vocational needs of the handicapped should be identified in proposed applications and integrated use of resources demonstrated.
4. Vocational educators should make maximum use of training facilities and resources in the community to meet the vocational needs of the handicapped.

Student Services:

The handicapped student cannot be permitted to develop expections of economic and social independence based on the acquisition of a saleable skill if there is no access to employment or if the student can't hold the job once employed.

1. Testing services in the areas of vocational ability, aptitude and interest, and career awareness must be available to handicapped students.
2. Transportation services should be open to non-ambulatory and other categories of handicapped students needing them.
3. Personal grooming advice and survial skill training should be available to handicapped students needing this service.
4. Prosthetic and mobility aids of various kinds should be available at the school for students needing them and provision should be made through the school for repair of student prosthetic and mobility aids.

5. Pre-vocational, vocational, and career counseling should be sequentially available to handicapped students.
6. In-school job placement and job placement upon graduation services must be provided to all handicapped students on a sequential basis.
7. Follow-up job adjustment services should be available to handicapped students following graduation.
8. The school must make efforts to prepare the community, technical school, employer, and/or college receiving handicapped graduates to integrate them into these environments in suitable fashion.

School/Community Coordination

Vocational programs not only must do a thorough job of educating the handicapped once they are enrolled but also must undertake activities which inform handicapped students and their parents of available vocational training opportunities, and the qualifications needed to enter these programs. Furthermore, contact must be maintained with school graduates, to evaluate programmatic and recruitment efforts and effectiveness.

1. Vocational schools should have a systematic process of recruitment and a formal publicity program to inform students and their parents of the availability of various vocational education opportunities.

2. A systematic home visitation process should be part of every vocational facility serving the handicapped.
3. All vocational schools serving the handicapped should have a formal employer education program.
4. The vocational school should take its place within and cooperate with a community agency service network which serves the handicapped if one exists within its district, and seek to have such a network established if one does not exist.
5. Four key committees should be established as part of the outreach effort of all vocational schools serving the impaired. These should include both staff and outside persons in their membership. They are: (1) industry-instruction advisory committee; (2) job-employment advisory committee; (3) parent-student advisory committee; and (4) legislative relations committee. It is recommended that on all four bodies, the staff representation be in the minority.
6. Greater interaction must be promoted between vocational education and public and private employers. Too often, one groups is oblivious of the other's needs, a condition resulting in less effective vocational education of the handicapped and lessened

job placement and job success of handicapped graduates. Specifically, school staff and employers should serve on program planning committees, conduct visitation of one another's facilities, and engage in the sharing of non-confidential student information. A key information need by the schools are the employment standards or job proficiency skills required for success in competitive employment.

7. Vocational educators must endeavor to inform parents, community leaders and legislators of the nature of vocational services for the handicapped, and of the various programs available. Educators share a responsibility for educating the public to the social benefits of vocational training and of correcting myths regarding the employment of the handicapped. Dialogue, similar to that advocated among educators and between educators and employers, must also be established between the greater community and vocational educators.

Environment

The environment for the handicapped includes the school, the community and the job. Modification of the environment must be considered if vocational education accepts responsibility to the training of the handicapped, their placement and employment and eventual job success.

The movement to design barrier free facilities and to inform the public and its decision-makers of the need for handicapped-accessible buildings should be supported and emphasized regarding its relevance to the educational sector. Equally important, as the needs of the handicapped student inside a school building are the need for access to the job. Lack of transportation is as much a barrier to employment as steps or narrow doors.

The vocational director may undertake the responsibilities in concert with other individuals or in cooperation with community groups. The goal is to see that no person is denied employment on the basis of a handicap, or prevented from learning or working becuase of physical barriers.

Environmental Guidelines:

1. All physical barriers which present an individual from getting to the learning site, from benefiting from the instruction or the content should be eliminated.
2. All physical barriers affecting the physical well-being, comfort and safety of the handicapped should be eliminated.
3. All legal or discriminatory barriers to job pursuit, job employment and job performance should be eliminated.
4. The work environment including attitude and knowledge of the community, fellow employees or employers

regarding employment of the handicapped should be considered as a responsibility of vocational education.

5. Vocational school buildings should be fully accessible to the handicapped, and should contain one or more of the following in order to achieve that end: entrance ramps, automatic doors, wide doorways, special parking facilities, sidewalk ramps.
6. Vocational school facilities serving the handicapped should contain the following features: elevators with braille markings (if more than one story), special doors, adaptive lavatory, drinking, and telephone facilities, non-slip flooring, multi-sensory direction and alarm systems, and an adaptive work environment, amplification equipment in classrooms.
7. Special seating facilities for the handicapped should be available in all vocational classes.
8. Special vocational education study units and learning packets should be available to impaired students needing them.
9. School buildings should be equipped with such safety and security aids as necessary to safeguard the handicapped in event of diaster.

REFERENCES

REFERENCES

A. BOOKS

Arthur, Julietta K. Employment for the Handicapped. Nashville, Tennessee: Abingdon Press, 1967.

Conley, R.W. The Economics of Vocational Rehabilitation. Baltimore, Maryland: Johns Hopkins University Press, 1965.

Crawford, Fred L. Career Planning for the Blind. New York: Farrar, Straus and Gonox, 1966.

Lasell, Warren L. A Study of the Vocational Education Needs of the Resources for Educable Mentally Reatreded Persons in New York State. Columbus: Ohio State University, 1974.

Schein, Jerome D. The Deaf Population of the United States. Washington, D.C.: National Association of the Deaf, 1974.

B. GOVERNMENT PUBLICATIONS

Comptroller General of the United States. Effectiveness of Vocational Rehabilitation in Helping the Handicapped. Washington, D.C.: Social and Rehabilitation Service, Department of Health, Education and Welfare, April, 1973.

Comptroller General of the United States. What is the Role of Federal Assistance for Vocational Education? Washington, D.C.: Department of Health, Education and Welfare, 1974 (B-164031(1).

Consolidated Report on Elementary and Secondary Education in Colorado. Denver: Colorado Department of Education, 1973.

Education of Handicapped Children. Status Report, School Year 1973-74 and Midyear 1974-75. Denver: Colorado Department of Education, 1974, p.3.

Ethnic Group Distribution in the Colorado Public Schools. Denver: Colorado Department of Education, 1973.

Exotech Corporation. *Effectiveness of EHA-B Projects.* Washington, D.C.,: Office of Planning, Budgeting and Evaluation. Department of Health, Education and Welfare, 1974.

Guidelines for Vocational Education Programs for Persons with Special Needs. Lansing, Michigan: State Department of Education, 1974.

Kay, Evelyn R., Barbara H. Kemp, and Frances G. Saunders. *Guidelines for Identifying, Classifying, and Serving the Disadvantaged and Handicapped Under the Vocational Education Amendements of 1968.* Washington, D.C.: U.S. Government Printing Office, 1973.

Rand Corporation. *Improving Services to Handicapped Children with Emphasis on Hearing and Vision Impairments.* Washington, D.C.: Department of Health, Education and Welfare, 1974.

Rand Corporation. *Services for Handicapped Youth: A Program Overview.* Washington, D.C.: Department of Health, Education and Welfare, 1973.

Report on Study of Learning Disabilities. Denver: Colorado Department of Education, 1973.

U.S. Bureau of Education for the Handicapped. *Rationale for Estimation of Handicapped Children and National Manpower Needs.* Washington, D.C.: Office of Education, Department of Health, Education and Welfare, 1971.

U.S. Department of HEW, Office of Education. *Vocational Education: The Bridge Between Man and His Work.* Washington, D.C.: U.S. Government Printing Office, 1968.

U.S. Department Of HEW. *Preliminary Report on Characteristics of Rehabilitated Clients, FY 1972.* Information Memo RSA-IM-73-37. Washington, D.C.: Division of Social and Rehabilitation Services, December 19, 1972.

U.S. Department of Labor. *A New Approach to Manpower.* Washington, D.C.: U.S. Government Printing Office, 1974.

Young, Earl B. (ed.) *Vocational Education for Handicapped Persons: Handbook for Program Implementation.* Washington, D.C: U.S. Government Printing Office, August, 1969.

C. PERIODICALS

Anttonen, John E. "Integrated Programs for the Mildly Handicapped," *Academic Therapy*, IX (Winter 1973-74), pp. 235-240.

Best, John P. and Robert J. Winn. "A Place to Go in Texas," *The International Journal for the Education of the Blind*, XVIII, Number 1, (March, 1968), pp. 2-9.

Brolin, Donn. "Career Education Needs of Secondary Educable Students," *Exceptional Children*, (May, 1973), pp. 619-624.

Brolin, Donn. "Vocational Evaluation: Special Education's Responsibility," *Education and Training of the Mentally Retarded*, (February, 1973), pp. 12-17.

Clark, Gary M. "Career Education for the Mildly Handicapped," *Focus on Exceptional Children*, V, Number 9 (February, 1974), pp. 1-9.

Colella, Henry. "Career Development Center: A Modified High School for the Handicapped," *Teching Exceptional Children*, (Spring, 1973), pp. 110-118.

Coker, D. Gary. "The Development of a Vocational Program in a Residential School for the Visually Handicapped," *The New Outlook for the Blind*, (January, 1974), pp. 25-28.

Green, H. Gordon. "Removing Barriers from the Pathways of the Handicapped," *Human Needs*, (February, 1973).

Hallenbeck, Charles, E. "Curriculum Standards in the United States for Training Blind Persons in Computer Occupations," *New Outlook for the Blind*, (June, 1973), pp. 266-271.

Hehie, Richard. "Integrating Deaf Students for Career Education," *Exceptional Children*, (May, 1973), pp. 611-618.

Housman, Roberta. "Business and Industry and Rehabilitation: Triumvirate of the Future," *Journal of Rehabilitation*, (May-June, 1974), pp. 32-33.

Lake, Thomas P. "Career Education as a Philosophy and Practice: An interview with George Klinkhamer," *Teaching Exceptional Children*, (Spring, 1973), pp. 124-127.

Laurence, Marilyn. "The Self-Reliance Institute: Filling the Gap in Work Experience," *The New Outlook*, (May, 1973), pp. 221-225.

Martin, E.W. "Individualism and Behaviorism as Future Trends in Educating Handicapped Children," *Exceptional Children*, 38 (1973), pp. 517-525.

Reynolds, LeRoy, et. al."Cooperative Vocational Training in Senior High," *The Pointer*, (Fall, 1973), pp 35-37.

D. PROFESSIONAL ORGANIZATIONS, SCHOOLS, PRIVATE ASSOCIATIONS AND INDUSTRY

A Pilot Study of Career Preparation of Selected Handicapped Senior Students in California High Schools. Woodland Hills, CAlifornia: The Eckman Center, 1971.

An Assessment of Vocational Education Programs for the Handicapped Under Part B of the 1968 Amendments to the Vocational Education Act. Salt Lake City: Olympus Research Corporation, 1974.

Camaren, R. James. *A Proposed Management Information System for Special Education in Colorado.* Denver, Colorado: Performance Management Specialists, Inc.,August, 1973.

Camaren, R. James. *Prevalance of Physically Handicapped Children in Colorado.* Denver, Colorado: Performance Management Specialists, Inc., 1973.

Council on Development Disabilities, *A Proposed Service System for the Developmentally Disabled of Colorado and Standards for Service.* Denver, Colorado: The Council, 1974.

Department of Special Education. *A Continuation Follow-Up Study of Graduate Students in the DPS Special Education Program for the Year 1969-1970.* Denver: Denver Public Schools, September, 1973.

Leholl, G.T., M.K. Bauman, and M.S. Grissey. *A Study of the Visually Handicapped.* Ann Arbor, Michigan: The University of Michigan School of Education, 1969.

Lunde, Anders S. and Stanley R. Bigman. *Occupational Conditions Among the Deaf.* Washington, D.C.: Gallaudet College, 1959.

Organization for Social or Technical Innovation, Inc. *Blindness and Services to the Blind in the United States.* Cambridge, Massachusetts: Osti Press, 1968.

Parker, Scott L., et. al. Improving Occupational Programs for the Hanciapped. Washington, D.C.: Management Analysis Center, Inc., 1974.

Rocco, Patricia and Ralph Hunter. Project Tomorrow: How to Implement Individual Prescriptive Education. Phase III Report. Denver, Colorado: Colorado State University in Cooperation with the State Board for Community Colleges and Occupational Education, 1973.

Secckendorf, Robert. Study of Vocational Needs of EMH and the Handicapped. Albany, New York: New York Advisory Council for Vocational Education, 1974.

Stuart, Lorrie and others. Exemplary Programs for the Handicapped. IV. Cambridge, Massachusetts: ABT Associates, Inc., 1973.

APPENDIX A

CLASSIFICATION AND DEFINITIONS OF THE HANDICAPPED

CLASSIFICATION SYSTEM FOR THE HANDICAPPED

The classification system for the handicapped is designed to include all persons with a physical or mental handicap who cannot or are not succeeding in a regular vocational education program. To assist an individual to succeed, one or more of the allowable special services should be provided to maximize the likelihood of his successful completion of a vocational program.

To be eligible for special vocational programs, program modifications, and related services under the 10-percent set-aside funds for the handicapped, an individual should fulfill the following conditions:

(1) He meets the criteria for classification as handicapped which have been established by the State Educational Agency for the categories included in the definition in the Vocational Education Amendments of 1968.

(2) He is diagnosed and classified by qualified professional persons.

(3) He is unable, because of his handicapping condition, to succeed in vocational programs designed for persons without such handicaps.

The categories of handicaps have been selected for ease of identification and classification by the classroom teacher. The numbers assigned to each category may be used for reporting information to local and State administrators. Such information is essential for planning and evaluating the effectiveness of vocational education programs and supportive services provided for the handicapped. The statements following each category are provided as examples of the types of handicaps in that category.

Mentally Retarded

Individuals are considered to be mentally retarded when their rate of intellectual development is significantly less than the normal rate and their potential for academic achievement is estimated to be markedly less than that expected of persons with a normal rate of intellectual development.

Criteria for inclusion in these categories require professional diagnosis in which conditions, such as hearing loss, visual handicaps, emotional handicaps, learning disabilities, language handicaps, social and cultural deprivation, are ruled out as the primary cause of lack of ability to succeed.

Educable Retarded

Individuals in this group have a rate of intellectual development which is approximately 45 to 75 percent of normal. They can be expected to achieve maximally to about the sixth-grade level in academic work. However, they can be educated and trained to enter the world of work in positions which formerly may have been considered beyond their capabilities.

The rate of intellectual development, and other criteria for inclusion in this category, must be that which is specified by State Regulations.

Trainable Retarded

Individuals in this group have a rate of intellectual development approximately 25 to 50 percent of normal and respond more slowly to education and training than do the educable retarded. Many can be trained for jobs which require single skills and in which adequate supervision is provided.

The rate of intellectual development, and other criteria for inclusion in this category, must be that which is specified by State Regulations.

Learning Disability

Individuals with this handicap exhibit a disorder in one or more basic psychological processes involved in understanding or using spoken or written language. These processes may be manifested in disorders of listening, thinking, speaking, reading, writing, spelling, or simple computing. The term includes conditions which have been referred to as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, developmental asphasia, etc. This category does not include learning problems which are primarily caused by visual, hearing, or motor handicaps, mental retardation, emotional disturbances, or environmental disadvantages.

Seriously Emotionally Disturbed

Individuals with this handicap suffer from psychiatric disturbances which limit their ability to govern their own behavior. These disturbances are of such a nature and severity as to require one or more special educational or other type of services.

Orthopedically Handicapped (Crippled)

These individuals are limited in self-mobility, sitting in a classroom, and/or using materials or equipment for learning because of muscular, skeletal, or neuromuscular impairment.

Visually Handicapped

These individuals are severely limited in their ability to see. State laws and regulations established the criteria for the diagnosis and classification of visual disabilities.

Partially Sighted. Using the criteria specified by the State, include in this group those individuals whose vision is limited even with correction to the extent that modifications must be made in program, equipment, materials, and/or facilities if they are to be able to succeed in the vocational program.

Blind. State laws define legal blindness. The extent of the visual disability is severe. Usually, the visual handicap is such that the indivual must depend, to a large extent, on his sense of touch and hearing rather than on his sense of sight.

Hearing Impaired

Individuals in this group have a sense of hearing inadequate for success in learning situations. State laws and regulations establish the criteria for the diagnosis and classification of hearing disabilities.

Hard of Hearing. The individual can hear and understand speech, but with difficulty. The speech must be loud and the individual must use a hearing aid, or lipreading along with a hearing aid, to supplement his own hearing.

Deaf. Even with the amplification of sound provided by a hearing aid, the individual is unable to hear and recognize all speech sounds.

Speech Impaired

These individuals have speech patterns that differ noticeably from the normal. Speech disorders may be articulatory, vocal, stuttering, or derive from delayed speech, and speech disorders associated with cleft palate, hearing impairment, or cerebral palsy.

Other Health Impairment

This group of individuals have limited strength, vitality, and alertness because of chronic health problems such as heart conditions, tuberculosis, rheumatic fever, nephritis, infectious hepatitis, infectious mononucleosis, asthma, hemophilia, epilepsy, leukemia, diabetes, and other chronic conditions.

Multihandicapped

Individuals in this group have a combination of handicapping conditions, each of which must be considered in planning programs or program modification.

Definition of the Handicapped

"Handicapped persons" means mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or other health impaired persons who by reason of their handicapping condition cannot succeed in a vocational or consumer and homemaking education program designed for persons without such handicaps, and who for that reason require special educational assistance or a modified vocational or consumer and homemaking education program.

Source: Section 102.3--Definitions, Federal Register, Vol.35, No.91, Saturday, May 9, 1970, page 7335.

APPENDIX B

PRELIMINARY COLORADO SURVEYS

1. Sheltered Workshops
2. Vocational Educators
3. Handicapped Students

performance management specialists

5200 South Quebec St. • Englewood, Colorado 80110 • 303-771-1646
R. James Camaren Ed.D.
President

November 27, 1974

Dear Sheltered Workshop Director,

I would like to ask for your help in completing the enclosed "Colorado Sheltered Workshop Survey." The information requested will be used in a United States Office of Education-sponsored study dealing with the vocational needs of the handicapped.

The results of the project will provide guidelines for State and local education agencies, and legislative bodies interested in vocational and handicapped education programs in order that public schools may improve services to the handicapped.

Thank you for your time and consideration in completing the survey.

Sincerely,

Mary E. Daniel
P/M/S/ Staff Associate

Encl.

COLORADO SHELTERED

WORKSHOP SURVEY

General Information

The information requested will be included in a USOE sponsored study dealing with the vocational needs of the handicapped. The principal investigator is Dr. R. James Camaren, 771-1646. The study is endorsed by the Colorado Vocational Rehabilitation Department.

Instruction

1. Complete the desired information for any 12 month period, i.e., January 1 - December, 1973 or July 1, 1973 - June 30, 1974.
2. Fold, stape and mail. Please return the information to 5200 South Quebec Street, Suite 202, Englewood, Colorado 80110 by

Survey Date - 12 Month Period From ______________ To ________________.

1. Number of persons (referrals, drop-ins) seeking aid/services from Sheltered Workshop. ______________________________
2. Number of different clients served by Sheltered Workshops. ________
3. Number of clients referred for paid employment positions. _________
4. Number of clients placed in paid employment positions.
   - (a) Sheltered Workshop ______________
   - (b) Competitive Employment __________

COMMENTS:

Optional:

Name of Shelter ____________________
Location of Shelter _________________
Name of Person
Preparing Report __________________

COLORADO SHELTERED WORKSHOPS

Survey Sample

Mr. Robert Smith, Director
Sheltered Work Program
Adams County Community Center for the
Retarded & Seriously Handicapped, Inc.
P.O. Box 21227 - 7015 Julian Street
Denver, Colorado 80221
PHONE: 426-1562

Mrs. Marilyn Friedrich, Director
Adams County Work & Evaluation Center
7675 North Washington
Denver, Colorado 80229
PHONE: 287-0271

Mr. Stan Bond, Director
AVATRAC
2680 South Platte River Drive
Denver, Colorado 80223
PHONE: 777-3022

Mr. David Henninger, Director
Bayaud Industries, Inc.
95 South Cherokee Street
Denver, Colorado 80223
PHONE: 744-2532

Mr. Jeff Hinds, Coordinator
Work Activities Centers
Vocational Services
BRIDGE Industries
714 East 18th Avenue
Denver, Colorado 80218
PHONE: 892-6902

Mr. Kenneth Menzie, Director
Boulder County Sheltered Workshop
1343 Iris Avenue
Boulder, Colorado 80302
PHONE: 449-1632

Mr. Don Burton, Director
Cerebral Palsy Center
2727 Columbine Street
Denver, Colorado 80205
PHONE: 355-7337

Mr. John Tscharner, Executive Director
Foothills Gateway Rehabilitation Center
301 Skyway Drive
Fort Collins, Colorado 80521
PHONE: 493-7575

Mr. James L. Mitchell, Director
Work Therapy Workshop - Building 55
Fort Logan Mental Health Center
3520 West Oxford Avenue
Denver, Colorado 80236
PHONE: 761-0220 Ext. 461

Mr. Pete Hoke, Executive Director
Goodwill Industries of Colorado Springs
P.O. Box 6318 - 2307 W. Colorado Ave.
Colorado Springs, Colorado 80934
PHONE: 633-8792

Mr. Gerald Stickney, Executive Director
Goodwill Industries of Denver
3003 Arapahoe Street
Denver, Colorado 80205
PHONE: 266-3771

Mr. Harry Bollman, Executive Director
Goodwill Rehabilitation, Inc.
475 - 28 1/2 Road
Grand Junction, Colorado 81501
PHONE: 242-4130

Mr. Anthony Olshefskie, Director
Goodwill Industries of Pueblo
230 North Union
Pueblo, Colorado 81003
PHONE: 544-9336

Mr. George E. Brantley, Director
Hope Center for the Retarded
3601 East 32nd Avenue
Denver, Colorado 80205
PHONE: 388-4801

Mr. Kenneth Hutcheson
Services for the Blind
122 Social Services Building
1575 Sherman Street
Denver, Colorado 80203
PHONE: 892-2763

Mr. Lew Kitts, Director
Laradon Hall Occupational Center
East 51st Avenue and Lincoln Street
Denver, Colorado 80216
PHONE: 892-0234

Mr. David L. Gies, Director
Las Animas County Rehabilitation Center, Inc.
P.O. Box 156
Trinidad, Colorado 81082
PHONE: 846-3388

Mr. Tim Hakonson, Plant Manager
Noresco
P.O. Box 505
Ft. Morgan, Colorado 80701
PHONE: 867-5702

Mr. Jerry Daugherty, Executive Director
Pueblo Diversified Industries, Inc.
2828 Granada Boulevard
Pueblo, Colorado 81005
PHONE: 564-0000

Mr. Allen Jones, Executive Director
Four Corners Sheltered Workshops, Inc.
121 Main Avenue
Durango, Colorado 81301
PHONE: 247-0277

Mr. Wallace B. Ragan, Director
Jefferson County Sheltered Workshop
5686 Gray Street
Arvada, Colorado 80002
PHONE: 422-1305

Mr. Charles Haines, Supervisor
Rehabilitation Services Center
c/o Colorado State Hospital
Pueblo, Colorado 81003
PHONE: 543-1170 Ext. 2525

Mr. William D. Crosby, Chief
Education and Training Department
State Home and Training School
10285 Ridge Road
Wheat Ridge, Colorado 80033
PHONE: 424-7791 Ext. 215

Mr. James Boland, Director
Schaefer Rehabilitation Center
P.O. Box 368 - 2419 - 6th Avenue
Greeley, Colorado 80631
PHONE: 353-0662

Alfred M. Neuman, J.D.
Executive Director
Utility Workshop
1212 Delaware Street
Denver, Colorado 80204
PHONE: 623-0251

pms performance management specialists

5200 South Quebec St. • Englewood, Colorado 80110 • 303-771-1646
R. James Camaren Ed.D.
President

January 15, 1975

Dear Vocational Educator,

We would like to ask for your help in completing the attached Vocational Instructor Survey. The information sought is part of a U.S. Office of Education sponsored study dealing with the Vocational Needs of the Handicapped in the State of Colorado.

The results you provide will help us determine the number of handicapped now enrolled in your vocational program and/or the type of assistance you feel you need to be able to better serve the handicapped. This information will enable us to develop Guidelines for Improving Services and Programs for the Handicapped.

Upon completion, would you please return the survey to
____.

Thank you for your cooperation.

Cordially,

R. James Camaren and Mary Daniel
Project Staff

/jp

Enclosure

performance management specialists

5200 South Quebec St. • Englewood, Colorado 80110 • 303-771-1646
R. James Camaren Ed.D.
President

January 15, 1975

Dear Vocational Educator,

We would like to ask for your help in completing the attached Vocational Instructor Survey. The information sought is part of a U.S. Office of Education sponsored study dealing with the Vocational Needs of the Handicapped in the State of Colorado.

The results you provide will help us determine the number of handicapped now enrolled in your vocational program and/or the type of assistance you feel you need to be able to better serve the handicapped. This information will enable us to develop Guidelines for Improving Services and Programs for the Handicapped.

Upon completion, would you please return the survey to
____.

Thank you for your cooperation.

Cordially,

R. James Camaren and Mary Daniel
Project Staff

/jp

Enclosure

VOCATIONAL EDUCATION INSTRUCTOR SURVEY
(Vocational Needs of the Handicapped)

District ______________________________ School ______________________________

1. What vocational subjects do you teach?
    - ___ Agriculture
    - ___ Business/Office
    - ___ Trades/Industry
    - ___ Home Economics
    - ___ Health
    - ___ Technical
    - ___ Distributive Education
    - ___ Work Study
    - ___ Other ______________________________

2. How many students do you serve:
    - ___ Sophomores
    - ___ Juniors
    - ___ Seniors
    - ___ Post Graduates (18-21 years)

3. Did your teaching preparation include courses on educating handicapped students?

    Undergraduate ___ Yes ___ No
    Graduate ___ Yes ___ No
    Inservice ___ Yes ___ No

4. To what degree is your present vocational education program able to serve handicapped students?

Handicapped Condition	Presently Serving (Number Served)	Could Serve in Present Program (Please Check)	Could Serve With Major Program Modification (Please Check)	Could Not Serve Under Any Circumstances (Please Check)
Mentally Handicapped	___	___	___	___
Physically Handicapped	___	___	___	___
Visually Handicapped	___	___	___	___
Hearing Handicapped	___	___	___	___
Deaf/Blind	___	___	___	___
Emotional Disorder	___	___	___	___
Communication/ Perception Disorder	___	___	___	___
Speech	___	___	___	___

5. Has your District, Board of Cooperative Services or Special Education Department:

    (A) Offered you assistance in meeting the vocational needs of the handicapped?
    ___ Yes ___ No
    (B) Asked you for assistance in determining vocational education needs of the handicapped?
    ___ Yes ___ No

6. What changes, in order of priority, are necessary to enable your present vocational education program to serve handicapped students effectively? (Rank the following 11 items in order of priority.)

Rank Order	Change
___	(a) additional inservice on handicapped
___	(b) modifications of facilities/equipment
___	(c) additional instructional assistance
___	(d) assistance/service from Special Education
___	(e) changes in District of state administration policies
___	(f) changes in counseling procedures
___	(g) more planning time
___	(h) more student transportation
___	(i) more follow-up/placement
___	(j) job market for area served
___	(k) contract for service outside district for specialized vocational help for handicapped students

7. If Guidelines for Improving Vocational Programs for the Handicapped were developed, what kinds of information would you like to see included?
    - ___ What capabilities and expectations could I anticipate from students that are handicapped?
    - ___ "Inservice" on handling childrens' handicapping emergencies (i.e. convulsions).
    - ___ What kinds of disabilities may fit particular programs?
    - ___ What equipment and supplies are available to work with handicapped students?
    - ___ What kinds of help other staff members can provide? (i.e. special education, counselors, administrators and state vocational directors.)
    - ___ What are the liabilities in serving the handicapped?
    - ___ How to apply for funds for equipment or services for the handicapped?
    - ___ Other (Please explain) ______________________________

    ____

    ____

8. Do you believe the handicapped should be served in regular vocational education programs?

    ___ Yes ___ When Possible ___ No

    Comments: ______________________________

    ____

Thank you for your time and consideration in completing this survey instrument. Please return to ______________ ______________ by January 22, 1975.

Sincerely,

R. James Camaren
Project Director

VOCATIONAL INSTRUCTOR

Survey Sample

Larimer County BOCS
P.O. Box 2397
Ft. Collins, Colorado 80522
L.A. Hergenreter, Director

Julesburg School District
P.O. Box 359
Julesburg, Colorado 80737
C.L. Robertson, Superintendent

Boulder Valley Schools
Boulder, Colorado 80302
George T. Lyon
Vocational Education/
Adult Education, Director

Platte Canyon School District
Bailey, Colorado 80421
Frank Maher, Superintendent

Warren Technical Center
Lakewood, Colorado 80215
Angelo Daurio,
Assistant Director

Delta County School District
RFD 1, Box 127
Delta, Colorado 81416
Harry Anderson,
Director Vocational Education

Brighton School District
270 South 8th Avenue
Brighton, Colorado 80601
Walt Taylor, Colorado CVA President
Agriculture Department

Aurora Vo-Tech Center
Aurora, Colorado 80011
Harold Dunning, Executive Director

Arapahoe-Douglas Vocational School
Littleton, Colorado 80120
Wayne Ball, Director

performance management specialists

5200 South Quebec St. • Englewood, Colorado 80110 • 303-771-1646
R. James Camaren Ed.D.
President

May 9, 1975

Dear Student:

P/M/S is participating with your School District in a study to determine student's vocational needs and how well the BOCS or School Districts are helping to prepare their students for vocational careers and occupational employment.

We are asking you to complete the attached follow-up survey regarding your perception of the effectiveness of the activities your District has undertaken to help you. Your response will help the District develop programs to better meet these needs. All replies are confidential -- please note that no name is requested on the form.

A stamped, addressed envelope is enclosed for convenient and expedient return.

Thank you very much for your contribution to the study.

Sincerely,

Ruth E. Evans

/jf

Enclosure

FOLLOW-UP OF STUDENT VOCATIONAL NEEDS

would like to ask for your help in completing the attached Vocational Needs Survey. The information requested is part a District study dealing with the Vocational Needs of the Handicapped.

The primary purposes of the survey are to determine the vocational needs of the Handicapped and how well the BOCS or stricts are helping the children prepare for vocational careers and occupational employment. Your responses will help e District develop programs to better meet these needs.

Feel free to ask your parents or another adult for help should you experience difficulty in completing the survey.

ar of Graduation

Pre-job Training Information
A. Did you receive education about jobs? Yes _____ No _____
B. What did the above education consist of? (please check)
_____1. Information about different kinds of jobs
_____2. Types of jobs available for an individual with my handicap
_____3. Training required for different types of jobs
_____4. Duties for different types of jobs
_____5. How to find a job
_____6. How to get along with employers and employees
C. Did you receive academic and job counseling and testing for skills, abilities and interests? Yes _____ No _____
1. Did the results tell you what you could do best? Yes _____ No _____
2. Did the results tell you what you like to do? Yes _____ No _____

I Job Training
A. Have you had any job training? Yes _____ No _____
If yes, from which of the following did you receive your training? (please check) _____1. High School Classes; _____2. On the job training; _____3. Adult/college vocational classes.
B. Which of the following parts of your high school program were helpful to you? (Rank in order from 1 through 11. If not available in your high school, put "n/a" in the blank.)
_____1. Academic classes (Example: math, science, etc.)
_____2. Social activities (parties, field trips)
_____3. Equipment modification (Example: hand instead of foot pedal on a machine)
_____4. Special equipment for students with my handicap (Brailler for blind student)
_____5. Special transportation (Example: Golf cart, elevator, etc.)
_____6. Modification of facilities (Example: ramps for wheel chairs)
_____7. One to one instruction
_____8. Flexible scheduling (more class time, longer semester, longer school year)
_____9. Curriculum modification (Example: taking another class in place of class required for graduation)
_____10. Individualized workbooks or textbooks (substituting easy vocabulary for regular)
_____11. On-the-job training
C. Which of the following helped you in your job training?
_____1. Vocational Rehabilitation
_____2. Colorado Department of Labor (employment service)
_____3. Vocational Technical school (Example: Aurora or Warren Vocational Technical Schools)
_____4. High School
_____5. Handicapped service organizations (Example: Colorado Epilepsy Assoc., Inc.; Colo. Speech & Hearing Assoc.,etc)
_____6. Parents, friends, relatives
_____7. Other (please explain)____
D. Were you encouraged to enroll in the Vocational Education program in your school? Yes _____ No _____
E. Did you feel that the vocational education programs were available to you? Yes _____ No _____
F. Which of the following Vocational Education areas did you study:
_____1. None
_____2. Agriculture
_____3. Distributive Education
_____4. Health Education Occupations
_____6. Occupational Homemaking
_____7. Business and Office
_____8. Technical Education
_____9. Trade and Industry

COLORADO HANDICAPPED STUDENT

Survey Sample

AGENCY	CONTACT
Aurora Public Schools 1085 Peoria Street Aurora, Colorado 80011	Charles S. High Assistant Director of Special Education
Brighton School District 630 East 8th Avenue Brighton, Colorado 80601	Lydia Swize Director of Pupil Services
Boulder Valley Schools 6500 East Arapahoe Road Boulder, Colorado 80302	Floyd W. Baribeau Director of Special Education
Delta County Schools RFD 1, Box 127 Delta, Colorado 81416	Rex Raney Director of Special Services
Jefferson County Schools 1215 Quail Street Lakewood, Colorado 80215	Robert Weiland Director of Pupil Personnel
Larimer County BOCS P.O. Box 2397 Ft. Collins, Colorado 80522	Dale Polley Director of Special Education
Northeast Colorado BOCES Haxtun, Colorado 80731	Herbert Oman Executive Director
Platte Canyon Schools P.O. Box 158 Bailey, Colorado 80421	Frank Maher Superintendent
SEMBCS 3647 South Santa Fe Drive Englewood, Colorado 80110	Dennis Hanley Director of Special Education

APPENDIX C

EXEMPLARY AND COLORADO PROGRAM SURVEY

pms performance management specialists

5200 South Quebec St. • Englewood, Colorado 80110 • 303-771-1646
R. James Camaren Ed.D.
President

State Supervisor
Vocational Education Department
Disadvantaged and Handicapped Programs

Dear Sir:

Your help is needed. Guidelines for improving vocational programs to meet the needs of the handicapped are being sought by teachers, local directors and state directors.

The U.S. Bureau of Occupational Education has approved a study for us to work on this need.

As part of the methodology of this study, we are planning to look at certain vocational programs for the handicapped recommended by State D & H directors as outstanding. We would be seeking to isolate those program elements which better programs for the handicapped possess.

Enclosed is a stamped return envelope and a single page form for you to indicate your nomination. Estimated time for completion is five minutes. Your help is truly appreciated.

Cordially,

R. James Camaren Ed.D.
Project Director

encl:

R.J.C./jc

OUTSTANDING DISTRICT/CENTER/DISTRICT PROGRAMS AND SERVICES FOR MEETING THE VOCATIONAL NEEDS OF HANDICAPPED STUDENTS.

School/Center/District Name	Geographical Service Area (urban, Surburban, Rural)	Address	Contact Person
________	________	________ ________	________

Indicated which of the following program components or resources are contained in the above mentioned program:

______ Pre-vocational counseling
______ Special instructional service
______ Special instructional materials
______ Special resource teachers or aides
______ Special environment or building
______ Placement service for the handicapped
______ Additional preparation time
______ Special transportation
______ Cooperation agreement with Special Education, Vocational Rehabilitation
______ Special advisory committee for handicapped
______ Employment and follow-up

What program within the center is doing an outstanding job of serving the handicapped?

________________________ (example: welding)

Is this program: (Check)

______ a) A modified regular vocational education program which serves handicapped students?
______ b) A special vocational education program for the handicapped?
______ c) A residential vocational program for the severely handicapped?

Is there another program you would nominate that serves the handicapped? (In addition to the above mentioned district)

School/Center/District Name	Geographical Service Area (Urban, Surburba, Rural)	Address	Contact Person
________	________	________ ________	________

Please indicate which of the following program components or resources are contained in the above mentioned program:

______ Pre-vocational counseling
______ Special instructional service
______ Special instructional materials

________ Special resource teachers or aides
________ Special environment or building
________ Placement service for the handicapped
________ Additional preparation time
________ Special transportation
________ Cooperation agreement with Special Education, Vocational Rehabilitation
________ Special advisory committee for handicapped
________ Employment and follow-up

Thank you for your time. Please return to:

Dr. R. James Camaren
P/M/S
5200 South Quebec
Suite 202
Englewood, Colorado 80110

performance management specialists

5200 South Quebec St. • Englewood, Colorado 80110 • 303-771-1646
R. James Camaren Ed.D.
President

Dear

Attached is a questionnaire form designed to obtain data for the federal vocational education research project #_______________________, which has been commissioned to develop guidelines for modifying regular vocational education programs to serve the needs of handicapped students.

Your program has been designated as "exemplary" by your state director of vocational education. Information about the program will be used to develop normative guidelines for the study.

Directions

The questionnaire form consists of four parts. The first three areas are presented in a closed format, and require only checkmark (✓) or numerical responses.

Part four is presented in an open format and requires a brief written response.

Please return the completed questionnaire form in the enclosed stamped, self-addressed envelope.

May I thank you in advance for contributing to the study.

Sincerely,

Dr. R. James Camaren
P/M/S, Incorporated
5200 South Quebec Street
Englewood, Colorado 80110
(303) 771-1646

School Name ____________________

School Address ____________________

Name of person(s) completing this form ____________________

____

QUESTIONNAIRE FORM

PART I
VOCATIONAL EDUCATION PROGRAM INFORMATION

I. Program Type(s) — (What % of handicapped student served in each type)

- A. Modified/Regular (Handicapped and regular vocational education students served together) — A. __________
- B. Special Segregated Program (Handicapped students served in special vocational programs in non-integrated classrooms) — B. __________

100%

II. Community Served — (Please check all that apply)

- A. Inner City — A. __________
- B. Urban (over 50,000) — B. __________
- C. Suburban (2,500-50,000) — C. __________
- D. Rural (under 2,500) — D. __________

III. Enrollment Policy (include both handicapped and non-handicapped students) — (What % for each?)

- A. Selection
  1. Open enrollment (interest-Major Criterion) — 1. __________
  2. Selective enrollment (please explain) — 2. __________
- B. Progression
  1. Continuous entry/open exit — 1. __________
  2. Annual or semester entry — 2. __________

IV. School Size — (Please indicate number)

- A. How many high schools do you serve? — A. __________
- B. Total high school enrollment of above schools
  1. Male (non-handicapped) — 1. __________
  2. Female (non-handicapped) — 2. __________
  3. Male (handicapped) — 3. __________
  4. Female(handicapped) — 4. __________
- C. Total Vocational School Enrollment
  1. Male (non-handicapped) — 1. __________
  2. Female (non-handicapped) — 2. __________
  3. Male (handicapped) — 3. __________
  4. Female(handicapped) — 4. __________

Part I (continued)

D. Vocational Education enrollment at each level: (Please indicate number)

	Non-Handicapped	Handicapped
1. 9th	1.	
2. 10th	2.	
3. 11th	3.	
4. 12th	4.	
5. Postsecondary	5.	

E. Number of vocational instructors E.____________

F. Number of Special Education support personnel F.____________

V. Title of person or office having primary responsibility for handicapped students:

____________________ ____________________

Title Office Location

PART II
HANDICAPPED STUDENT CHARACTERISTICS - VOCATIONAL EDUCATION PROGRAM

I. Enrollment-Handicapped Vocational Students (Please respond to each item)

A. Number of handicapped vocational enrolled
  1. Male 1. ____________
  2. Female 2. ____________

B. Ages
  1. Under 15 years 1. ____________
  2. 15-18 years 2. ____________
  3. Over 18 years 3. ____________

C. Average % day handicapped student spends in vocational activities C. ____________%

II. Vocational Student Handicapping Conditions and Severity (Indicate approximate enrollment)

	Mild	Moderate	Severe
A. Physical Orthopedic	A.		
B. Hearing Disabilities	B.		
C. Vision Disabilities	C.		
D. Mental Disabilities	D.		
E. Learning Disabilities (Communicative/Perceptual/Emotional)	E.		
F. Speech Disabilities	F.		
G. Emotional-Behavioral Disorder	G.		
H. Other: ____________	H.		
____________			

Total Number Handicapped Students: ____________

PART III
PROGRAM ELEMENTS

I. Curricular Program for Handicapped Vocational Students (Please check all that apply)

A. Academic Phase

1. Basic education (reading, writing, math)	1.________
2. Remedial instruction	2.________
3. Pre/postsecondary vocational education	3.________
4. General education	4.________
5. Independent Living Skill Training	5.________
6. Other (list)________________ ________________	6.________
7. No academic program offered	7.________

[redacted]rt [redacted] (co[redacted]nued)

B. Vocational Phase (please respond to each item)

CODE
Mentally Handicapped--MH
Physically Handicapped--PH
Visually Handicapped--VH
Hearing Handicapped--HH
Deaf/Blind--D/B
Emotional-Behavioral Disorder--ED
Communication/Perception Disorder--C/P
Speech--S

Occupational Area	Courses					Community-Based Work Study Component (i.e., Coope tive Education, Cooperative On-the-Job Training, Experience Study								
	Offered		Total Enrollment	Handicapped Enrollment	Type Handicapped Able to Serve (List)(See Code)	Included			Student Paid?		Open to Handi-capped Student?		Cours Credi
	Yes	No				Yes	No	Planned	Yes	No	Yes	No	Yes
Agriculture													
Distributive Education													
Health Education Occupations													
Consumer Homemaking													
Occupational Homemaking													
Business & Office Education													
Technical Education													
Trade & Industrial Education													
Others (List)													

C. Special Studies for Handicapped Vocational Education Students
1. Career orientation/exploration or pre-vocational
2. Vocational adjustment (interview skills, job attitudes)
3. Safety education
4. Self-concept development
5. In-school work experience
6. Special communication skills (Braille, sign language)

D. Curricular Improvement System
1. Curricular development/revision system
2. Curricular committees
   Staff members
   Community members
   Student members
3. Others (list) ____________________
   ____

	Available	Planned	Not Availab	Don't Want	Desirable
C.					
1.					
2.					
3.					
4.					
5.					
6.					
D.					
1.					
2.					
3.					

(list)

E. 1. Vocational youth organizations and affiliated groups (FBLA, FHA, FFA, DECA, HERO, VICA, OEA)
2. Contests ____________________
____
____
3. Are handicapped students encouraged to participate?

E. ____________________
1. ____________________
2. ____________________
____
____

Yes ________ No ________

II. Student Services

A. General Services for Handicapped Vocational Students
1. Recruitment System
2. Student screening referral systems
3. Identification and diagnosis guidelines
4. Testing services (aptitude, interests, achievement, psychological)
5. Counseling Services
   a. Academic (educational planning and support)
   b. Vocational (career)
   c. Rehabilitation
   d. Decision making-problem solving
6. Social/personal skills development (self-concept)
7. Transportation service
8. Nutritional/personal grooming
9. Financial Aid
10. Community welfare, social work
11. Safety services
12. Security system
13. Prosthetic aids (visual, hearing, artificial limbs)
14. Mobility aids (wheelchairs, golf carts, etc.)

	Available	Planned	Not Available	Don't Want	Desirable
A.					
1.					
2.					
3.					
4.					
5.					
a.					
b.					
c.					
d.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					

		Available	Planned	Not Availa	Don't Want	Desirable
A. (continued)						
15. Handicapped equipment repair services	15.					
16. Physical therapy	16.					
17. Escalators-Elevators	17.					
18. Others (list)____________________	18.					
____________________						
B. Career Services for Handicapped Vocational Students	B.					
1. Pre-vocational counseling	1.					
2. Vocational guidance	2.					
3. Career planning	3.					
4. In-school job placement	4.					
5. Job placement upon graduation	5.					
6. Follow-up job adjustment services	6.					
7. Career sampling (field trips, one-day work experience)	7.					
8. Community preparation	8.					
a. job survey, analysis, modification	a.					
b. employer counseling and education	b.					
9. College or technical school counseling and placement	9.					
10. Others (list)____________________	10.					
____________________						
III. Staff services (to those serving handicapped students in vocational education)						
A. Information	A.					
1. Professional reference library regarding handicapped	1.					
2. Special Education media center	2.					
3. Consultants in vocational education, special education	3.					
4. Curriculum guides	4.					
5. Identified course competency objectives	5.					
B. Professional Development and Improvement	B.					
1. Inservice activities	1.					
a. Vocational competencies	a.					
b. Attitudinal training regarding the handicapped	b.					
c. Handicap instruction skills	c.					
d. Learning theory	d.					
2. Visitation/observation activities	2.					
C. Modified Work Load	C.					
1. Additional planning time	1.					
2. Reduced student-teacher ratio	2.					
3. Additional teacher aides	3.					
D. Fringe Benefit System (i.e., performance/responsibility pay)	D.					

IV. Instruction

		Total number of program pers	How many are certified, licen degreed or credentialed?	How many have a Special Educa background?	How many have had inservice o preservice training of the handicapped?
A. Vocational Program Personnel	A.				
1. Professional Staff	1.				
a. Vocational instructors	a.				
b. Trades specialists	b.				
c. Academic instructors	c.				
d. Special education resource staff for handicapped (assigned special education instructor staff)	d.				
e. Tutors	e.				
f. Counselors	f.				
g. Physical therapists	g.				
h. Coordinators	h.				
(1) home/school	(1)				
(2) community/school	(2)				
i. Learning specialists	i.				
j. Handicap specialists	j.				
k. Psychological services	k.				
l. Social workers	l.				
m. Medical services (doctors, nurses)	m.				
n. Others (list)______	n.				
______					
2. Nonprofessional Support Staff Directly Assigned to Instructors	2.				
a. Clerical	a.				
b. Instructional aides (paid)	b.				
c. Volunteer aides	c.				
d. Community Resource Personnel	d.				
e. Other (list)______	e.				
______					
3. Authorization to Contract Outside Services	3.				
a. Consultants	a.				
(1) Management	(1)				
(2) Curriculum	(2)				
(3) Psychological Services	(3)				
(4) Medical Services	(4)				
(5) Other (list)______	(5)				
______					
______					
b. Training facilities	b.				
c. Lease-purchase of equipment	c.				
d. Other	d.				

	Available	Planned	Not Availab	Don't Want	Desirable
B. Vocational Education Materials for Handicapped					
1. Multi-sensory equipment (list)______________________					
____					
____					
2. Individualized learning media-materials, tools (list)______________________					
____					
3. Special seating equipment					
4. Special vocational education study units/learning packets					
5. Adaptive work environment					
6. Special safety guards on equipment					
7. Other (list)______________________					
____					
C. Methodology/Organization of the Vocational Education Program for Handicapped Students					
1. Performance-based student instructional objectives					
2. Individual prescribed instruction					
3. Student performance contracts					
4. Second language instruction					
5. Variable group instruction					
6. Team teaching					
7. Multi-age grouping					
8. Media oriented instructional approach					
9. Experiential learning (field trips)					
10. Other (list)______________________					
____					

D. Grading System (Please check all that apply)

1. a. Competitive-normal curve 1.a.______________
   b. Non-competitive--pass/fail b.______________
2. a. Norm-referenced 2.a.______________
   b. Criterion referenced b.______________
   Other______________________ ______________
   ______________________ ______________

E. Report System (Please check all that apply)

1. Report Card 1.______________
2. Parent Conference 2.______________

	Available	Planned	Not Available	Don't Want	Desirable
V. Facilities Description					
A. External Modifications for the Handicapped					
1. Entrance ramps					
2. Automatic doors					
3. Wide doorways					
4. Special parking facilities					
5. Sidewalk ramps					
6. Other (list)______________________					
____					

	Available	Planned	Not Available	Don't Want	Desirable
B. Internal Modifications for Handicapped					
1. Special stairways (Describe)________					
2. Handrails					
3. Special doors					
4. Multi-sensory directions (Describe)________					
5. Multi-sensory alarm system (Describe)________					
6. Special lavatory facilities					
7. Special drinking facilities					
8. Special telephone facilities					
9. Special electrical facilities					
10. Non-slip flooring					
11. Elevator--Braille					
12. Adaptive work environment					
13. Amplification equipment					
14. Other modifications (list)________					

C. Title and location of person directly responsible for decisions regarding facilities modifications for handicapped students. ________

Title

____

Office Location

	Available	Planned	Not Available	Don't Want	Desirable
VI. Management Practices					
A. Administrator Training/Experience					
1. Vocational education					
2. Special education					
3. General education					
B. Program Management					
1. Program promotion/student recruitment					
2. Needs assessment program					
a. Student needs					
b. Community needs					
c. Employer needs					
d. School District requirements and policy					
e. State guidelines					
3. Inter-staff cooperation program					
a. Vocational educators involved in special education staffing					
b. Provide vocational assessment of handicapped					
C. Liaison program and cooperative agreements (Specify)________					
1. Community colleges					
2. Vocational rehabilitation					
3. Employment services					
4. Special education					
5. Other (list)________					

	Available	Planned	Not Available	Don't Want	Desirable
D. Program Evaluation System					
1. Student progress					
2. Staff performance					
3. Program cost-effectiveness					
4. Long range goals (3-5 year plan)					
5. Attitudinal					
6. Follow-up (effectiveness of program)					
VII. Community Relations					
A. Community Services					
1. Parent information program					
2. Home visitation					
3. Employer education program					
4. Community agency service network					
5. Community education program					
6. Adult vocational education program					
7. Other (list)____________________					
B. Community involvement (with focus on improvement of vocational opportunities and services to the handicapped)					
1. Industry Instruction Advisory Committee					
2. Job-Employment Advisory Committee					
3. Parent-Student Advisory Committee					
4. Legislation Relations Committee					

PART IV
GENERAL COMMENTS

I. Crucial Program Elements

What program elements do you consider to be most crucial to the effectiveness of your program in meeting the needs of the handicapped?

A.____

B.____

C.____

D.____

II. Modifications/Reorganizational

What major changes to the regular vocational education program were necessary to improve the delivery of vocational education to the handicapped?

A.____

B.____

C.____

D.____

III. Problems

What were or are the major problems in serving handicapped students in a regular vocational education program?

A.____

B.____

C.____

D.____

IV. Other suggestions for developing "Guidelines for Improvement of Vocational Programs and Resources to Serve Needs of Handicapped Students."

A.____

B.____

C.____

D.____

V. If you wish to receive a summary of Questionnaire Findings, please check here.________

VOCATIONAL EDUCATION DIRECTORS
"Exemplary" Programs
Survey Study

Mrs. Mary Brown
CCE Coordinator
Mills High School
1300 Dixon Road
Little Rock, Arkansas 72206

Mr. Ernest L. Rush
Vocational Director
Metropolitan Vocational - Technical
Education Center
7701 Scott Hamilton Drive
Little Rock Arkansas 72209

Dr. Jack Schvetz
Vocational Education Director
Keon Union High School
Bakersfield, California 93301

Mr. Walter Retzlaff
Vocational Education Director
Fullerton Joint Union High School
Fullerton, California 92632

Mr. Theodore Guttadore
Director
The Center for the Physically
Disadvantaged
Community College of Denver -
North Campus
1001 East 62nd Avenue
Denver, Colorado 80216

Dr. James Harris
Principal
Warren Vocational Technical Center
13300 West Ellsworth Avenue
Golden, CO 80401

Mrs. Kudo, Administrator
Vocational Technical Programs
Department of Education
P. O. Box 2360
Honolulu, Hawaii 96804

Dr. Frederick Haehnlen, Provost
Kapiolani Community College
620 Pensacola Street
Honolulu, Hawaii 96814

Mr. John T. Travis
Vocational Education Director
La Grange Area Department of Special
Education
P. O. Box 341
1301 West Cossitt Avenue
La Grange, Illinois 60525

Mr. Robert S. Gomsrud
Vocational Education Director
Whiteside Area Vocational Center
Sterling, Illinois 61081

Mr. Bruce Hicks
Vocational Education Director
Iowa Western Community College
Council Bluffs, Iowa 51501

Dr. Terry Nelson
Vocational Education Director
Iowa Lake Community College
Emmetsburg, Iowa 50536

Mr. Nelson Neil
Coordinator
Mt. Blue High School
Farmington, Maine 04938

Mrs. Edith Slipp
Coordinator
Fort Fairfield High School
Fort Fairfield, Maine 04742

Mr. Patrick Egan
Vocational Education Director
Calhoon Area Vocational Center
475 East Roosevelt
Battle Creek, Michigan 49017

Mr. Irv Boynton
Vocational Education Director
Wald Lake Consolidated School District
695 North Pontiac Trail
Wald Lake, Michigan 48088

Mr. Robert Holt
Vocational Education Director
Lebanon High School
Lebanon, New Hampshire 03766

Mr. Richard Kelly
Vocational Education Director
White Mountain Regional High School
Office of the Superintendent of Schools
Littleton, New Hampshire 03561

Mr. Michael Del Conte
Vocational Education Director
Bergen County Vocational Schools
ar Paramus
Pascach Road
Paramus, New Jersey 07652

Mr. Michael Lauten
Vocational Education Director
Scotch Plains - Fanwood High School
Westfield Road
Scotch Plains, New Jersey 07076

Mr. Anthony De Franco
Vocational Education Director
Bergen County Vocational Schools
as Wood Ridge
304 Valley Boulevard
Wood Ridge, New Jersey 07075

Mr. Frank J. Wolff
Vocational Education Director
Nassau County BOCES
Valentines Road and Plain Road
Westbury, New York 11590

Mr. John Carey
Vocational Education Director
Westchester BOCES #1
345 Fox Meadow Road
Yorktown Heights, New York 10598

Mr. William Bryant
Vocational Education Director
Greensboro City Schools
P. O. Drawer V
Greensboro, North Carolina 27402

Mr. I. H. Kearney
Vocational Education Director
Davidson County Schools
P. O. Box 1229
Lexington, North Carolina 27292

Mr. Jack Gableman
Vocational Education Director
Grand Forks, North Dakota 58201

Dr. Leonard Kingsley
Vocational Education Director
Penta County JVS
30335 Oregon Road
Perrysburg, Ohio 43551

Dr. William Deighan
Vocational Education Director
Willoughby - Eastlake
37047 Ridge Road
Willoughby, Ohio 44094

Dr. John B. Bradley
Vocational Education Director
Freedman Vocational School--Aiken County
3560 Augusta Road
Aiken, South Carolina

Mr. W. E. Walker
Vocational Education Director
West Franlin School
Anderson School District #5
P. O. Box 439
Anderson, South Carolina 29621

Mr. John Keith
Vocational Education Director
South Bent-Raymond-Menlo School Districts
1016 Commercial Street
Raymond, Washington 98577

Mr. James L. Brooks
Vocational Education Director
Vancouver School District
605 North Devine
Vancouver, Washington 98661

COLORADO VOC ED PROGRAM

Survey Sample

COUNTY	FALL 1973 MEMBERSHIP
Arapahoe County	
Englewood Senior High 10-12	1,352
Sheridan 4 Year High 9-12	620
Cherry Creek Senior High 9-12	3,649
Littleton	
Arapahoe Senior High 10-12	1,597
Heritage High 9-12	1,761
Littleton Senior High 10-12	1,655
Deer Trail Undiv. High 7-12	109
Aurora	
Gateway Senior High 9-12	1,235
Hinkley Senior High 10-12	1,695
Central Senior High 10-12	1,955
Aurora Technical Center	660
Boulder County	
Technical Center Enrollment	765
Delta County	
Cedareage Undivided High 7-12	339
Delta Senior High 9-12	697
Hotchkiss Junior Senior High 7-12	271
Poania 4 Year High 9-12	271

COUNTY	FALL 1973 MEMBERSHIP
Douglas County	
Douglas County Senior High 10-12	271
Arapahoe Douglas Vocational School Enrollment	450
Adams County	
Brighton Senior High 10-12	935
Jefferson County	
Lakewood Senior High 10-12	1,683
Warren Vocational Tech. Center (.001% in more than one class)	1,115
Larimer County	
Fort Collins Senior High 10-12	953
Poudre Senior High 10-12	1,118
Rocky Mountain High 10-12	953
Berthoud Undivided High 7-12	531
Loveland Senior High 10-12	1,476
Estes Park Undivided High 7-12	523
Park County	
Platte Canyon Junior Senior High 7-12	216
Sedgwick County	
Julesburg Senior High 9-12	176

APPENDIX D

PROJECT DISSEMINATION MATERIALS

1. Preliminary Information
2. General News Release
3. Special Group Releases
4. Conference Releases

performance management specialists

5200 South Quebec St. • Englewood, Colorado 80110 • 303-771-1646
R. James Camaren Ed.D.
President

August 20, 1975

The Honorable Richard Lamm
Governor of Colorado
State Capitol Building
Denver, Colorado 80203

Re: State Plan for the Handicapped

Dear Governor Lamm:

As Chief Executive, you are required to review and approve the State Plan for serving handicapped children prepared by the Colorado Department of Education. The Plan serves as a guide for use of State resources in meeting the needs of handicapped children. A review of the preliminary version indicates that the department has addressed the major needs of handicapped in all areas save one -- career and vocational education.

The need for increased effort in this area is well documented in Colorado and nationally by: (1) the small numbers of handicapped students receiving vocational education in high schools; (2) the high unemployment rate among handicapped adults; (3) the evidence which reveals that handicapped adults can be productive, contributing members of the labor force and society when provided with saleable skills; and (4) the cost/benefit to society and to the State of dollar investment in training and rehabilitation vs. long term unemployment and maintenance care.

In the interest of the State's economic and social future and on behalf of Colorado's present school age handicapped population which numbers approximately 90,000 students, I submit for your consideration, to be directed to the Department of Education to incorporate into the State Plan, the following national goal:

> "Assure by 1977, every handicapped child who leaves school has had career and vocational training relevant to the job market, meaningful to his career aspiration, and realistic in terms of his future potential."

By your action you insure that the future holds meaning and promise for many thousands of Colorado's young handicapped citizens. I would add that the need for vocational education for the handicapped provides you the opportunity to charge the State Board for Occupational Education, the Department of Vocational Rehabilitation and the Colorado Department of Education to integrate their department plans in support of the goal. Such action would, for the first time, bring about the development of a coordinated service delivery system directed to the achievement of a single goal.

On the basis of my previous work in the area of vocational and special education for the State of Colorado and the U.S. Office of Education, I can assure you that improving the delivery of vocational services to the handicapped is not dependent on additional monies, new legislation or a reorganization of State agencies, as much as it is on inter-agency coordination, departmental commitment and imaginative leadership translated into concrete agency actions.

In support of this position, I am prepared to lend my services to assist you or your Planning Office in reviewing the adequacy of the proposed State Plan in terms of meeting the career and vocational needs of Colorado's Handicapped Children.

Cordially,

R. James Camaren, Ed.D.
President

RJC:jp

January 16, 1974

TO: Special Education Directors

FROM: R. James Camaren, Ed. D.
President

SUBJECT: Vocational Education Research Project

Increasing the utilization of regular instructional programs by handicapped students is a goal we all support. It also happens to be a goal of the Colorado State Board for Community Colleges and Occupational Education. Recently, I wrote a proposal to the Department of Health, Education and Welfare, which if approved, would serve to develop the guidelines necessary to increase the utilization of regular vocational programs and services by handicapped children.

We're calling this to your attention for informational purposes only.

Should the project be approved by the Department of Health, Education and Welfare, the success of the effort will be dependent on the inputs made by special education and vocational education directors throughout the State in: 1) determining the perceived needs of handicapped youth for occupational and vocational training; 2) the problems relative to utilization of regular vocational programs and resources; and 3) the factors affecting the delivery of vocational education services to students with handicapping conditions.

A copy of the abstract and time line of achievement is included for your information.

As I receive further information on the project's status, I will pass this along. Perhaps later, we may request a general letter corroborating the need for such information. This will also indicate in what regions the needs are perceived to be the greatest.

cc: Louise Baribeau, President
Colorado Association of Special Education Directors

David Miles,
State Director of Special Education

RJC/pam

pms performance management specialists

5200 South Quebec St. • Englewood, Colorado 80110 • 303-771-1646
R. James Camaren Ed.D.
President

October 11, 1974

TO HEADS OF AGENCIES SERVING HANDICAPPED CHILDREN:

In 1972 it was my pleasure to have directed for the Colorado Department of Education, the state wide study on the number and location of handicapped children in Colorado.

I recently received word from the U.S. Office of Education that our proposal to study the vocational needs of handicapped children had been approved. The study focuses attention to needs in Colorado and how regular vocational programs can be improved to insure that handicapped children are able to benefit from such services.

Briefly, the project will direct attention to:

1. Determining the perceived needs of handicapped youth for occupational and vocational training.
2. The problems relative to utilization of regular vocational programs and resources.
3. The factors affecting the delivery of vocational education services to students with handicapping conditions.

The outcomes of this effort should provide school administrators and vocational directors guidelines and recommendation for program modification or changes necessary to enable regular vocational programs and services to better serve handicapped children.

With your support and the cooperation of parents of handicapped children in Colorado, we hope to identify the vocational needs of youth and develop recommendation for improvement of both program and services.

We would appreciate your informing members of your organization of this study. If you now have data which can help us document needs, we would certainly appreciate you forwarding it to us or calling it to our attention.

Cordially,

R. James Camaren, Ed.D.
President
RJC/ph

ABSTRACT

VOCATIONAL EDUCATION RESEARCH PROJECT

July 1, 1974 - June 30, 1975

TITLE OF PROJECT: Guidelines for Improvement of Vocational Education Programs and Resources to Serve the Needs of Handicapped Students

FUNDING SOURCE: Part C, Vocational Education Act of 1963, U. S. Office of Education

RESEARCH AGENCY: Performance Management Specialists, Inc.
5200 South Quebec Street, Suite 202, Englewood, CO 80110

PROJECT THRUST: Secondary Programs - State of Colorado

PURPOSE OF STUDY: To improve career and vocational opportunities of handicapped children.

OBJECTIVE OF STUDY: To provide school administrators and vocational directors guidelines on the modification or provisions necessary to enable regular vocational programs and services to better serve handicapped children.

NEED: The 1973 Handicapped Children's Educational Act declared it is the intent of the Legislature that handicapped children be educated in regular classroom situations whenever possible.

There are more handicapped children attending secondary schools than there are handicapped enrolled in vocational programs.

The Colorado State Vocational Board has declared as one of its goals, the providing of specialized services to assist the disadvantaged and handicapped to succeed in occupational education programs.

Local, State and Federal resources are insufficient to establish special vocational programs for all handicapped children and, therefore, other alternatives must be found.

ACTIVITIES: Identify outstanding programs providing vocational services to handicapped students.

Identify the unmet needs of handicapped youth for career and vocational training and services.

Identify perceived and real problems relative to utilization of vocational services by handicapped youth.

Develop guidelines for improving the delivery of regular vocational education services to youth with handicapping conditions.

PROJECT INFORMATION: Principal Investigator: Dr. R. James Camaren, Project Director. Office telephone (303)771-1646.

PROJECT PHASES AND COMPLETION DATES:

Descriptive: Determine current perspective on the vocational interests, education and employment of handicapped youth in Colorado. September 1, 1974.

Normative: Determine characteristics of exemplary vocational education programs for handicapped youth. January 1, 1975.

Survey: Determine characteristics of vocational education programs currently offered to handicapped secondary school students in Colorado. April 1, 1975.

Comparative: Determine relationships existing between exemplary and actual programs. May 30, 1975.

Reporting: Develop conslusions and recommendations regarding program modification needs in Colorado. June 30, 1975.

TO: District Superintendents
District Vocational Education Directors

FROM: R. James Camaren, Ed. D.
President

DATE: June 5, 1974

SUBJECT: Vocational Education Research Project

We recently received word from the U.S. Office of Education that the proposal submitted by P/M/S concerning regular vocational programs and services to handicapped children had been approved. The project will begin June 30, 1974 and continue for 12 months.

You may recall that both the Legislature and the State Board for Community Colleges and Occupational Education declared as major goals in 1973, the concept of mainstreaming and the providing of specialized services to assist the handicapped succeed in occupational education programs.

We were most pleased to have had our proposal selected, both because of the need and because of the opportunity it provides us to continue our association with vocational leaders throughout the state. I hope you will allow me to call on you for your input, advise and assistance.

Briefly, the project will direct attention to:

1. Determining the perceived needs of handicapped youth for occupational and vocational training.
2. The problems relative to utilization of regular vocational programs and resources.
3. The factors affecting the delivery of vocational education services to students with handicapping conditions.

The outcomes of this effort should provide school administrators and vocational directors guidelines on the modification or provisions necessary to enable regular vocational programs and services to better serve handicapped children.

Please share the additional copy of this memo with your vocational education director.

As the project status develops, I will keep you posted.

cc: James Wilson, State Director of Vocational Education

RJC/pam

NEWS RELEASE

PERFORMANCE MANAGEMENT SPECIALISTS, INC., a management organization specializing in education, IS CONDUCTING A STUDY, under a grant from the U.S. Dept. of Health, Education and Welfare, TO HELP determine what modifications are necessary to insure that COLORADO VOCATIONAL EDUCATION PROGRAMS in secondary schools SERVE FULLY the career and occupational needs of HANDICAPPED STUDENTS.

To fulfill the objectives of the study, the project is being conducted in five phases (descriptive, normative, survey, comparative, reporting), which will determine:

--The current status of Colorado's handicapped youth in terms of number, employment, education, and career interests.

--The characteristics of U.S. exemplary vocational education programs currently in existence in terms of their career training services to the handicapped.

--The current status of Colorado secondary level vocational education programs in terms of their service to handicapped youth.

--The comparability between U.S. exemplary voc ed programs and Colorado's programs at the secondary level in terms of discrepancies in service to handicapped youth.

--The program modifications recommended for Colorado public school voc ed programs to insure that handicapped students will be better served in terms of vocational and career education.

The P/M/S interim report of January 1975, summarized in this discussion, covers the descriptive phase and part of the normative phase; the final report, which will be made in August 1975, will present the findings of the survey and will compare these with the descriptive and normative phases already completed. Performance Management Specialists, Inc., which is exploring uncharted territory and is discovering unrealized needs during this study, in the final report will particularly focus on the project's ultimate objective--how Colorado can improve its vocational-career education services to its handicapped youth.

PHASE I ACTIVITIES - Summary of findings

Phase I (Descriptive Phase) activities focused on determining five parameters, which provide orientation and data bases for the remainder of the project's activities. These five include: (1) nature and scope of handicapping conditions among Colorado's school students; (2) employment opportunities for the handicapped; (3) job placement services for the handicapped; (4) vocational education opportunities for the handicapped; (5) career perceptions of handicapped youth. (The findings of this phase, combined with the literature review conducted in Phase II activities, were utilized to construct the questionnaire used in the normative phase.)

(1) NATURE AND SCOPE OF HANDICAPPING CONDITIONS

--Number and location of handicaps: P/M/S found that in Colorado's public schools, grades K-12, approximately 89,580 students were handicapped, with 58 percent of these students located in the Denver metro area, and 87 percent located in the Front Range population areas.

--Disabilities: Handicaps were classified as physical (orthopedic, visual, hearing), mental retardation, learning disabilities (perceptual, communicative, emotional disorders), and speech. Of these, the speech handicapped accounted for the majority (45 percent); second were the learning disabled (30 percent); mentally retarded were third (19 percent); followed by physical handicaps at about 6 percent.

--Incidence: Using its own surveys, and other available data, P/M/S concluded that the incidence of handicapped students in Colorado's grades 10-12 was (conservatively) 6.16 percent.

(2) EMPLOYMENT OF THE HANDICAPPED IN COLORADO

--Incidence of handicapped employment: P/M/S. found that no reliable information was available on the nature and extent of handicapped employment in the state. However, based on calculations made from existing data, it is estimated that about 18 percent of Colorado's work force are handicapped. It is also estimated that only 4 percent of Colorado's jobs are held by handicapped people. This means that the unemployment rate among Colorado's handicapped could run as high as 72 percent. Limited data indicate that employment opportunities among the handicapped could be related to prior vocational training and the nature of the handicap. For example, a Denver Public Schools 1973 survey showed that 67 percent of its Work Experience Study program graduates were employed full-time; and a 1971 follow-up of mentally retarded students indicated that 73 percent were employed in competitive positions.

--Areas of employment: Available data indicate that the majority of Colorado's handicapped is employed in the trade, service and non-skilled job areas. This finding is in contrast to national HEW data, which show that the majority of jobs held by U.S. handicapped workers is in the job areas of: wholesale/retail trades (32.5 percent); public or private service (21.7 percent); and clerical work (10 percent).

--Employment opportunity and availability: Again, no state data were available on job areas or occupational titles that are either open, marginally available or closed to handicapped workers. However, a review of 1970 Census data indicates that of the 1.1 million jobs in the state, the areas of greatest employment opportunity were found in the trade, government, services and manufacturing segments of employment. And, from the period of 1970-1974, the largest number of new positions opened up in trades, services, construction, agriculture and manufacturing. Thus, an implication for voc ed training for handicapped students might focus on training in these areas in preparing handicapped students to enter the work force.

--Factors impacting employment of the handicapped: Those in the position of placing handicapped workers indicated (through interviews) that they considered three factors to be of primary importance among potential employers of the handicapped. (1) Job performance: employers are reluctant to hire the handicapped when the standards of productivity might be impeded, or the disability might be aggravated by the tasks required by the job. (2) Work environment: employers hesitate to hire handicapped for positions that feature hot, heavy or dirty working conditions. (3) Selection of employment areas: placement officials report that practical areas of employment for the handicapped are those that depend most heavily on public patronage, such as trade and service industries, and those job areas where precedents against discrimination have been set, such as public service, civic and charitable activities. Coincidentally, these are the employment areas that have exhibited the greatest increases in employment opportunity.

(3) JOB PLACEMENT SERVICES FOR THE HANDICAPPED

Through interviews, a questionnaire survey and a review of Denver Public School surveys, P/M/S found that the public schools, some state agencies and the county work shelters were actively organized to place handicapped workers. However, the majority of handicapped placements was a result of family-and self-initiated efforts to find jobs. Surveys indicate only minimal use of the state, county and private agency sources. Of the handicapped placements, 43 percent were in the youthful age categories (ages 15-24 years old), and 38 percent of the clients placed had at least graduated from high school. Of the handicapped placed by state agencies, the mentally handicapped accounted for the largest number; the Division of Rehabilitation placed 27 percent of its applicants; the Division of Employment placed 17 percent. Colorado's sheltered workshops placed 37 percent of their applicants in paid positions. And, voc ed statistics indicate that 44 percent of handicapped applicants were placed during 1973-1974 by school placement services.

(4) VOCATIONAL EDUCATION FOR HANDICAPPED STUDENTS

This activity examined the status of voc ed programs in the state, and found that 91 percent of Colorado's 181 school districts offered regular voc ed programs, with only 48 percent of the districts offering "special" vocational training for handicapped students. Approximately 24 percent of Colorado's students in grades 10-12 attend these voc ed programs. Again, P/M/S found no official data on handicapped enrollment in such courses, but their own surveys indicate that as many as 28 percent of handicapped students receive voc ed training. However, P/M/S also estimates that no more than 16 percent attend regular programs and comprise only 4 percent of the enrollment of these classes.

Perhaps more important, the P/M/S survey of voc ed teachers found that only 38 percent felt that handicapped students should be served in regular programs. Teachers felt that problems in the way of full service to handicapped students are: (1) the teachers lack training to deal with handicapped students; (2) there is no information on the number or extent of handicapped students in voc ed programs; (3) these programs might be dangerous to handicapped students with more than a minor impairment; (4) regular students progress might be impeded by the presence of handicapped students; (5) handicapped students should only be allowed into courses where they will succeed; (6) teachers feel that handicapped students may fail to pass exams, hence, time is wasted on educating them.

(5) CAREER PERCEPTION OF HANDICAPPED YOUTH

Minimal data, again, are available on how handicapped youth perceive their career opportunities and capabilities. A survey is in progress to develop more extensive data in this area; however, based on what is available, P/M/S concluded that handicapped youth desire expanded vocational opportunities and would like to be "mainstreamed" into regular vocational classes, rather than segregated into "special" classes.

PHASE II ACTIVITIES - Summary of findings

Phase II (Normative Phase) activities involved: (1) a literature review to identify elements of voc ed programs for the handicapped; (2) the development of a questionnaire to determine the elements of successful voc ed programs serving handicapped youth; (3) the selection of exemplary programs in existence in the U.S. At this time, the questionnaire is still being administered and tabulated, and the data analyzed; project visitation is also being conducted.

Vocational education authorities were contacted in each state and they were asked to recommend programs they considered to be exemplary in their own states. Twenty-seven of these authorities were able to identify 54 programs as being exemplary. Of these, 32 programs were found to be regular voc ed programs that included handicapped students (the others served only handicapped students and were eliminated).

Based on the literature review and the findings of Phase I activities, a questionnaire was developed for these exemplary programs to determine the elements contributing to their success. The questionnaire was broken into four major areas of interest. These are: (1) program description; (2) student characteristics; (3) program characteristics; (4) problems of implementation. The results of this questionnaire will be used in developing exemplary program elements that could be applied to Colorado programs.

APPENDIX D - Cover Letter to Educators

pms performance management specialists

5200 South Quebec St. • Englewood, Colorado 80110 • 303-771-1646
R. James Camaren Ed.D.
President

TO: Those who are concerned...about Colorado's handicapped students... and their need for exemplary vocational and career education

FROM: Performance Management Specialists, Inc.

Did you know that...

...No more than 16 percent of Colorado's handicapped students attend regular voc ed programs, even though surveys show that those who have had vocational training are more easily placed in jobs? The vast majority of handicapped youth is limited to "special education"vocational training.
...Colorado teachers are only conditionally willing to serve handicapped students in regular voc ed programs because they feel inadequately trained to deal with handicapped students?
...Handicapped students receive training in "special" education classes when they would rather be "mainstreamed" into regular voc ed classes with non-handicapped students--but teachers feel that handicapped students might impede the progress of regular students in these classes?

These facts, and others equally as timely and important, have been reported by P/M/S in its interim report on the vocational education research project, "Guidelines for Improvement of Secondary School Vocational Education Programs to Serve the Career Needs of Handicapped Students". As of January 1975, when this interim report was made, P/M/S had completed the first phase of this study and was well into the second phase. The final report will appear in August 1975.

In the meantime, P/M/S is continuing work on this project, with the ultimate goals of: determining the current status of voc ed program service to Colorado's handicapped students; determining the parameters of "exemplary" programs in other states; comparing these programs with Colorado's programs; and developing recommendations that will enable Colorado's vocational programs to serve the needs of the state's handicapped student population more effectively.

P/M/S has found many gaps in the existing data on Colorado's voc ed service to the handicapped, and indeed, on the numbers and handicapping conditions among its high school student population. In some cases, P/M/S has drawn on its own expertise and resources to fill in the gaps with surveys and information-collection; in other cases, the need for information still exists. Since this is an on-going study, continuing through the spring and summer months, it is likely that P/M/S will find other, more extensive informational needs during the course of the investigation. These needs will be covered in the final report.

The P/M/S study also has found that Colorado is not yet in the "exemplary" category of career education for handicapped youth. These findings and others are presented in the attached interim report summary. For more information about this study, feel free to contact Dr. James Camaren, in Denver, 303/771-1646.

APPENDIX D - Cover Letter To Legislators

performance management specialists

5200 South Quebec St.• Englewood, Colorado 80110 • 303-771-1646
R. James Camaren Ed.D.
President

TO: Those who are concerned...about Colorado's handicapped students... and their need for exemplary vocational and career education

FROM: Performance Management Specialists, Inc.

Did you know that...

...No official data exist on the incidence of handicapped high school students in Colorado?
...No official data exist on the nature and extent of employment of the handicapped in Colorado?
...The unemployment rate among handicapped workers may run as high as 72 percent in Colorado?
...Although orgainized placement programs for Colorado's handicapped exist at the state level, the Division of Rehabilitation placed only 27 percent of its applicants and the Division of Employment placed only 17 percent of its applicants ?

These facts, and others equally as timely and important, have been reported by P/M/S in its interim report on the vocational education research project, "Guidelines for Improvement of Secondary School Vocational Education Programs to Serve the Career Needs of Handicapped Students". As of January 1975, when this interim report was made, P/M/S had completed the first phase of this study and was well into the second phase. The final report will appear in August 1975.

In the meantime, P/M/S is continuing work on this project, with the ultimate goals of: determining the current status of voc ed program service to Colorado's handicapped students; determining the parameters of "exemplary" programs in other states; comparing these programs with Colorado's programs; and developing recommendations that will enable Colorado's vocational programs to serve the needs of the state's handicapped student population more effectively.

P/M/S has found many gaps in the existing data on Colorado's voc ed service to the handicapped, and indeed, on the numbers and handicapping conditions among its high school student population. In some cases, P/M/S has drawn on its own expertise and resources to fill in the gaps with surveys and information-collection; in other cases, the need for information still exists. Since this is an on-going study, continuing through the spring and summer months, it is likely that P/M/S will find other, more extensive informational needs during the course of the investigation. These needs will be covered in the final report.

The P/M/S study also has found that Colorado is not yet in the "exemplary" category of career education for handicapped youth. These findings and others are presented in the attached interim report summary. For more information about this study, feel free to contact Dr. James Camaren, in Denver, 303/771-1646.

APPENDIX D - Cover Letter of State Agencies

pms performance management specialists

5200 South Quebec St. • Englewood, Colorado 80110 • 303-771-1646
R. James Camaren Ed.D.
President

TO: Those who are concerned...about Colorado's handicapped students... and their need for exemplary vocational and career education.

FROM: Performance Management Specialists, Inc.

Did you know that...

...Although approximately 8000 handicapped students attend Colorado high schools, less than 1300 or 16 percent are enrolled in regular vocational education programs?

...There is a marked lack of information about the incidence of handicapped students in Colorado's schools, and about the nature and extent of employment of the handicapped in Colorado?

...Although the public schools, some state agencies, and county sheltered workshops have organized placement programs for handicapped workers, the majority of these workers finds jobs through their own efforts or through help from family and acquaintances?

...Colorado's sheltered workshops placed about 37 percent of their applicants in 1974; however, 56 percent of those were placed in non-competitive, or sheltered employment?

These facts, and others equally as timely and important, have been reported by P/M/S in its interim report on the vocational education research project, "Guidelines for Improvement of Secondary School Vocational Education Programs to Serve the Career Needs of Handicapped Students". As of January 1975, when this interim report was made, P/M/S had completed the first phase of this study and was well into the second phase. The final report will appear in August 1975.

In the meantime, P/M/S is continuing work on this project, with the ultimate goals of: determining the current status of voc ed program service to Colorado's handicapped students; determining the parameters of "exemplary" programs in other states; comparing these programs with Colorado's programs; and developing recommendations that will enable Colorado's vocational programs to serve the needs of the state's handicapped student population more effectively.

P/M/S has found many gaps in the existing data on Colorado's voc ed service to the handicapped, and indeed, on the numbers and handicapping conditions among its high school student population. In some cases, P/M/S has drawn on its own expertise and resources to fill in the gaps with surveys and information-collection; in other cases, the need for information still exists. Since this is an on-going study, continuing through the spring and summer months, it is likely that P/M/S will find other, more extensive informational needs during the course of the investigation. These needs will be covered in the final report.

The P/M/S study also has found that Colorado is not yet in the "exemplary" category of career education for handicapped youth. These findings and others are presented in the attached interim report summary. For more information about this study, feel free to contact Dr. James Camaren, in Denver, 303/771-1646.

APPENDIX D - Cover Letter to Employers

performance management specialists

5200 South Quebec St. • Englewood, Colorado 80110 • 303-771-1646
R. James Camaren Ed.D.
President

TO: Those who are concerned...about Colorado's handicapped students... and their need for exemplary vocational and career education

FROM: Performance Management Specialists, Inc.

Did you know that...

...The unemployment rate among Colorado's handicapped workers may be as high as 72 percent?

...When employed, handicapped workers in Colorado presently seem to be limited almost exclusively to unskilled jobs by employers, although on a national level the handicapped are more prevalent in trades, public service and clerical occupations?

...Jobs are not being offered to the handicapped for a variety of reasons, but mostly as a result of lack of knowledge on the employer's part about the handicapped's capabilities, safety record and adaptability to working conditions?

...Although the public schools, some state agencies and county work shelters have organized placement programs for handicapped workers, most handicapped report that they find jobs as a result of their own initiative or help from relatives and acquaintances?

These facts, and others equally as timely and important, have been reported by P/M/S in its interim report on the vocational education research project, "Guidelines for Improvement of Secondary School Vocational Education Programs to Serve the Career Needs of Handicapped Students". As of January 1975, when this interim report was made, P/M/S had completed the first phase of this study and was well into the second phase. The final report will appear in August 1975.

In the meantime, P/M/S is continuing work on this project, with the ultimate goals of: determining the current status of voc ed program service to Colorado's handicapped students; determining the parameters of "exemplary" programs in other states; comparing these programs with Colorado's programs; and developing recommendations that will enable Colorado's vocational programs to serve the needs of the state's handicapped student population more effectively.

P/M/S has found many gaps in the existing data on Colorado's voc ed service to the handicapped, and indeed, on the numbers and handicapping conditions among its high school student population. In some cases, P/M/S has drawn on its own expertise and resources to fill in the gaps with surveys and information-collection; in other cases, the need for information still exists. Since this is an on-going study, continuing through the spring and summer months, it is likely that P/M/S will find other, more extensive informational needs during the course of the investigation. These needs will be covered in the final report.

The P/M/S study also has found that Colorado is not yet in the "exemplary" category of career education for handicapped youth. These findings and others are presented in the attached interim report summary. For more information about this study, feel free to contact Dr. James Camaren, in Denver, 303/771-1646.

performance management specialists

5200 South Quebec St. • Englewood, Colorado 80110 • 303-771-1646
R. James Camaren Ed.D.
President

July 7, 1975

MEMO

TO: Conference Participants

FROM: R. James Camaren

REF: June 17th and 18th Working Conference on Vocational Needs of the Handicapped.

Enclosed is the summary of task group reports and conference recommendations. i.e., barriers and guidelines.

Some of the guideline statements were rewritten to follow a standard format and to eliminate duplication. Guidelines have been organized under the headings of Administration, Resources and Programming, and, where appropriate, state, regional or local level categories.

We certainly welcome any comments or additions you may wish to make to the guideline. We intend to incorporate the results of the working conference into our completed study on improving the delivery of vocational education resources and programs for the handicapped.

performance management specialists

5200 South Quebec St. • Englewood, Colorado 80110 • 303-771-1646

For more information, call: R. James Camaren Ed.D.
President

For Immediate Release:

Improvement of existing services & programs, not additional state or federal money or laws, is the major need of vocational education for Colorado's handicapped, according to a conference summary released this week by Performance Management Specialists, Denver consulting firm.

The preliminary report, sent to participants at last month's working conference on vocational education of the handicapped, stresses better utilization of available human & fiscal resources. It also recommends that vocational training be more closely tied to the job market. According to Dr. R. James Camaren, Performance Management Specialists President & a leading authority on handicapped education, conference participants concluded that present vocational services & programs meeting needs of the handicapped could be improved without additional legislation, funding, or reorganization.

The conference report suggests several reforms for improving delivery of vocational services to the handicapped. Lack of inter-agency & inter-departmental cooperation is scored as one major problem area. Often, state agencies as well as local school district staffs operate independently or in ignorance of one another, the report alleges.

Another difficulty centers around committment to career & vocational education for the handicapped. Generally, educators do not accept the responsibility to see that every handicapped student who leaves school has had career & vocational training relevant to the

MORE MORE MORE MORE MORE

job market & meaningful to his career goals. Vocational educators frequently are unaware of the magnitude of this problem & how to remedy it, the report maintains.

Conferees suggested that every handicapped child be assessed as to his vocational interests, plans, & progress at age 14, 16, & 18. Each vocational teacher should be assigned a responsibility as the 'vocational advocate' for a small group of handicapped students in the school. Teachers serve as a career/vocational counselor to their assigned students, to insure that their vocational needs are met.

Still another problem mentioned in the report is a widespread failure to measure success of school programs by the job success of their graduates. If schools followed up their graduates, they would learn how to improve vocational education programs, by observing skill deficiencies which show up on the job. Conference participants felt that a measure of worth of any vocational program should be related to whether graduates can obtain & hold a job in the area for which they trained. Under the present system, success is often equated with student enrollments & course completions. Follow-up of graduates, including assistance to employers of the handicapped, is rarely provided.

The report will be part of a study financed by the United States Office of Education on guidelines for improving the delivery of vocational services for the handicapped, Camaren said.

# # # # # # # # # # #

APPENDIX I

60 Thurs., May 22, 1975

*THE DENVER POST

Study Shows Disabled Overlooked

Although more than 8,000 handicapped students attend Colorado high schools, less than 1,308 — about 16 per cent — participate in vocational education programs, according to a study done by a Denver consulting firm.

In a survey done for the U.S. Office of Education, performance Management Specialists, the consulting firm, also found that unemployment among adult handicapped workers is more than 70 per cent, compared with the figure for the whole labor force of less than 10 per cent.

This statistic, said Dr. R. James Camaren, survey project director, "runs counter to a public image of the handicapped as well taken care of in vocational matters."

Dr. Camaren, in an interim report to the Office of Education, recommended expanding placement of handicapped youths in regular vocational classes.

All too often, he said, career information and job training have been unavailable to handicapped students.

Page 8 — The Colorado Leader — June 14, 1975

Denver attorney will keynote conference on Handicapped, Jun 17

Leslie G. Berkowitz, Denver attorney and Chairman of the State Advisory Council on the Handicapped, will keynote an invitational conference on career and vocational needs of the Handicapped, June 17 at the Colorado Education Association building, 5200 South Quebec, Englewood.

The conference, sponsored by the Denver consulting firm Performance Management Specialists, will bring together directors and teachers of vocational and special education programs, and parents of handicapped youngsters. According to Dr. R. James Camaren, president of Performance Management specialists, the two day get-together is aimed at improving career preparation of handicapped junior and senior high students. Selected directors, teachers, and parents from all Denver Metro Area and surrounding school districts have been invited, he said.

Berkowitz, 26, a post polio quadraplegic, is a graduate of Denver's Boettcher School, the University of Missouri, and Denver University Law School. He was named to the Advisory Council on the Handicapped by then Governor Vanderhoof in October, 1974. Berkowitz will tell conferees what the Advisory Council is doing to facilitate vocational education of handicapped persons.

Intermountain Jewish News

June 13, 1975 Page 9

Berkowitz Keynotes Conference

Leslie Berkowitz

Leslie G. Berkowitz, prominent Denver attorney and Chairman of the State Advisory Council on the Handicapped, will keynote an invitational conference on career and vocational needs of the handicapped, June 17 at the Colorado Education Association building, 5200 South Quebec, Englewood.

The conference, sponsored by the Denver consulting firm Performance Management Specialists, will bring together directors and teachers of vocational and special education programs, and parents of handicapped youngsters. According to Dr. R. James Camaren, president of Performance Management Specialists, the two day get-together is aimed at improving career preparation of handicapped junior and senior high students.

Berkowitz, 26, a post polio quadraplegic, is a graduate of Boettcher School, the University of Missouri, and Denver University Law School. He was named to the Advisory Council on the Handicapped by former Governor John Vanderhoof in October, 1974. Berkowitz will tell conferees what the Advisory Council is doing to facilitate vocational education of handicapped persons.

A goal of the conference is to develop guidelines for improving delivery of vocational education services to handicapped boys and girls, Camaren said. Another goal is developing guidelines to improve resources to meet vocational needs of the handicapped. A research study that he recently conducted indicated that only about 16% of Colorado's handicapped high schoolers receive any vocational training.

4 THE DENVER POST ZONE 2 Wed., June 11, 1975

Berkowitz to Be Speaker At Meeting on Disabled

Leslie G. Berkowitz, 3343 S. Monaco Blvd., Denver attorney and chairman of the State Advisory Council on the Handicapped, will be keynote speaker for an invitational conference on career and vocational needs of the handicapped. The meeting will be June 17 in the Colorado Education Association Building, 5200 S. Quebec St., Englewood.

The conference, sponsored by Performance Management Specialists, a Denver consulting firm, will bring together directors and teachers of vocational and special education, as well as parents of handicapped youngsters. The session is aimed at improving career preparation of handicapped junior and senior high school students.

LESLIE G. BERKOWITZ

Berkowitz, 26, a post-polio quadraplegic, is a graduate of the University of Missouri and the University of Denver Law School. He will report on work of the advisory council to facilitate vocational education of handicapped persons.

Those attending the conference also will hear reports on various handicapped education programs, and then will form task groups to consider guidelines for improving vocational education of the handicapped.

---

page 24 Rocky Mountain Journal June 11, 1975

People

Leslie G. Berkowitz, Denver attorney, and chairman of the state advisory council on the handicapped, will keynote an invitational conference on career and vocational needs of the handicapped on June 17 at the Colorado Education Association building, 5200 S. Quebec st.

The conference is sponsored by the Denver consulting firm, Performance Managements Specialists, and will bring together directors and teachers of vocational and special education programs, along with parents of handicapped youngsters. The two day program is aimed at improving career preparation of handicapped junior and senior high school students, and selected directors, teachers and parents from all Denver metro area and surrounding school districts have been invited.

Littleton, Colo. The Independent 3
Thursday, June 12, 1975

Vocational training for handicapped

A conference on career and vocational needs of the handicapped will be held Tuesday at the Colorado Education Assn. building, 5200 S. Quebec st. Teachers and directors of vocational and special education programs and parents of handicapped youngsters will aim at improving career preparation of handicapped junior and senior high students, according to Dr. R. James Camaren of 5071 S. Beeler st., president of Performance Management Specialists.

Only 16% of Colorado's handicapped high schoolers receive any vocational training according to a research study by Performance Management Specialists, which is sponsoring the invitational conference. 30% of the high school population as a whole receive vocational training.

Study attempts to identify vocational needs of handicapped students

Although over 8000 handicapped students attend Colorado high schools, under 1300, or 16 percent, participate in regular vocational education programs, according to a study conducted by Performance Management Specialists, a Denver consulting firm, for the United States Office of Education.

Dr. R. James Camaren, project director, stated that the purpose of the study was to identify vocational needs of the handicapped. This research uncovered several surprising findings. For example, unemployment among adult handicapped workers is over 70 percent, while the figure for the over-all labor force is under 10 percent. This statistic runs counter to a public image of the handicapped as "well taken care of" in vocational matters.

The low percentage of handicapped high-schoolers taking vocational subjects may be related to high handicapped adult unemployment, according to Camaren. This is because previous research by others has shown that graduates of secondary vocational programs are much less apt to be unemployed as adults than non-vocational grads, he said.

In an interim report to the United States Office of Education, Camaren recommends expanding placement of handicapped youth in regular vocational classes, to prepare them to better compete in the adult working world. He feels that most handicapped teen-agers can handle regular vocational classes, and that all too often, career information and job training have been unavailable to handicapped students. A second phase of Camaren's research just beginning, will explore this topic further.

Dealing with needs of the handicapped is nothing new to Camaren. In 1972, Performance Management Specialists conducted a student needs assessment for the Colorado Department of Education which was commissioned by the Colorado Legislature (House Bill 1060). His firm conducts teacher workshops in handicapped education around the state.

The present study established that about 90,000 Colorado pupils, kindergarten through grade 12, have some kind of handicap. Of these, 45 percent have a speech problem, 30 percent a learning disability, 19 percent are mentally retarded, and 6 percent have a physical handicap.

Dr. R. James Camaren

In studying job placement of handicapped high school grads, Camaren found that the Division of Rehabilitation placed 27 percent of applicants, and the Division of Employment placed 17 percent.

Colorado's sheltered workshops placed 37 percent of client-applicants in paid positions. School vocational education staffs found jobs for 44 percent of handicapped students who sought their help.

APPENDIX E

PROJECT TEAM AND ADVISORY GROUP MEMBERS

PROJECT TEAM AND
ADVISORY GROUP MEMBERS

Firm Conducting the Study:

Performance Mangement Specialists Inc. (PMS) is a Colorado-based management research firm with a productive history of educational and social service experience in the fields of Special Education, Vocational-Career Education and Community Education

PMS service experience at the local, state and regional levels include needs assessments, goal identification and long range planning, training and technical assistance, program operations (turn-key), program accountability and management Information Systems.

PMS maintains offices in Denver, Colorado and field offices near main study site locations.

Study Team:

Project Director:

Dr. R. James Camaren: Ed.D. - University of California, Berkley undergraduate degree in Vocational Education, Certified Colorado Director of Special Education. Experienced School Administrator of regional programs for Vocational - Career - Adult and Special Education.

Director of the state-wide Needs Assessment study of handicapped children conducted for the Colorado Department of Education.

Project Research Specialists:

Dr. Richard Beck: Ed.D. - University of Denver. Former Director of Program Services, Colorado Department of Education and University of Denver Bureau of Research. Conducted writing phases of the project. Author of study monographs on special education management information systems and staff training for mainstreaming of mildly handicapped students.

Research Associates:

1. Ms. Mary Daniels - Educational background, Vocational Education. Directed collection of teacher data and maintained liaison with local vocational Education Directors during Phase I and II. Hired away from PMS by Boulder Valley School District to direct their Adult and Special Needs Vocational Programs.

2. Ms. Ruth Evans - Educational background, Administration and Personnel. Directed collection of organizational services of State and Community Agencies and maintained liaison with special education and handicapped organizations. Hired away from PMS by Regional Transportation District to serve as advisor on transportation of handicapped and as assistant to Executive Director.

3. Ms. Nancy Fox - Educational background, Elementary Education and Communications. Directed collection of special education exemplary data and Colorado program data, maintained liaison with school administrators during Phase III and IV. Hired away from PMS by Douglas County School District and then by Aurora School District to serve as District Research Associate.

Contracted Consultants:

1. Dr. Glen Dahlem: Vocational Counseling Specialists, formerly associated with Colorado Department of Institutions.

2. Mr. Joseph Patchman: Socio-economics specialists, projections of industry manpower needs and utilization capabilities.

Project Advisory Committee Members

Vocational Education Specialists

(a) Mr. Angelo Duario, Associate Director of Warren Vocational Technical Center (former State Supervisor of Vocational Education, State Board for Community Colleges and Occupational Education).

(b) Mr. Hal Dunning, Director, Aurora Vocational Technical Center.

(c) Mr. Wayne Ball, Director, Arapahoe/Douglas County Area Vocational School.

(d) Mr. Walt Taylor, President, Colorado Vocational Association and Director of Vocational Agriculture, Brighton, Colorado.

Special Education/Vocational Rehabilitation

(a) Dr. Dennis Hanley, Director, Special Education, Southeast Metropolitan Board of Cooperative Services, Denver, Colorado.

(b) Mr. Gerald Stickney, Executive Director, Goodwill Industries of Denver.

(c) Mr. Larry Meredith, Counselor, Vocational Rehabilitation.

(d) Dr. John Ogden, Director of MOuntain States Regional Deaf/Blind Program. (Former State Director of Special Education, Colorado Department of Education.)

SPECIAL EDUCATION ADMINISTRATIVE UNITS IN COLORADO

Adams County School District 1
Tom Maes, Special Education Director
1200 East 78th Avenue
Denver, CO 80229

Adams County School District 12
Charles De Voe, Special Education Director
10280 North Huron Street
Denver, CO 80221

Adams County School District 14
John A. Bellomo, Special Education Director
4720 East 69th Avenue
Commerce City, CO 80022

Adams County School District 27J
Jim Wiggins, Special Education Director
630 South Eighth Avenue
Brighton, CO 80601

Adams County School District 50
John E. Flynn, Special Education Director
7200 North Lowell Boulevard
Westminster, CO 80030

Arapahoe County School District 2
Carl Slatt, Special Education Director
P.O. Box 1198
Englewood, CO 80110

Arapahoe County School District 5
Lyle O. Johnson, Special Education Director
4700 South Yosemite
Englewood, CO 80110

Arapahoe County School District 6
Dennis Svaldi, Special Education Director
6558 South Acoma Street
Littleton, CO 80120

Adams Arapahoe School District 28J
Charles S. High, Special Education Director
1085 Peoria Street
Aurora, CO 80010

Boulder County School District Re1J
Louise Baribeau, Special Education Director
395 South Pratt Parkway
Longmont, CO 80501

Boulder County School District RE2J
Floyd L. Baribeau, Special Education Director
6500 East Arapahoe Road
P.O. Box 11
Boulder, CO 80302

Clear Creek County School District Re-1
Russell Riley, Special Education Director
Idaho Springs, CO 80452

Delta County School District 50J
Rex Raney, Special Education Director
R.F.D. 1, Box 66
Delta, CO 81416

Denver County School District 1
Theodore White, Jr., Special Education Director
414 14th Street
Denver, CO 80202

Douglas County School District RE-1 (J)
Betty Meyer, Special Education Director
P.O. Box Q
Castle Rock, CO 80104

El Paso County School District 11
Thomas Hockman, Special Education Director
1115 North El Paso Street
Colorado Springs, CO 80903

Gunnison County School District Re1J
James R. Raine, Special Education Director
216 West Georgia Avenue
Gunnison, CO 81230

Jefferson County School District R-1
Robert G. Weiland, Special Education Director
809 Quail Street
P.O. Box 15128
Lakewood, CO 80215

Larimer County School District R-1
C. Edward Ronayne, Special Education Director
2407 La Porte Avenue
Fort Collins, CO 80521

Larimer County School District R-2J
Hervert Reimer, Special Education Director
201 South Lincoln Avenue
Loveland, CO 80537

Las Animas County School District 1
A. J. Sanchez, Special Education Asst. Director
P.O. Box 766
240 North Convent Street
Trinidad, CO 81082

Logan County School District Re-1
W. Charles Nix, Special Education Director
221 North Third Street
P.O. Box 910
Sterling, CO 80751

Mesa County School District 51
Merritt L. Vanderhoofven, Special Education Director
2115 Grand Avenue
Grand Junction, CO 81501

Montezuma County School District Re 1
Kenneth McWilliams, Special Education Director
Drawer R
Cortez, CO 81321

Montrose County School District Re-1J
Ralph Peck, Special Education Director
309 South Cascade
P.O. Box 219
Montrose, CO 81401

Morgan County School District Re-3
Joseph Beatty, Special Education Director
230 Walnut Street
Fort Morgan, CO 80701

Pueblo County School District 70
Ima Dunn, Special Education Director
24951 Highway 50 East
Pueblo, CO 81004

Weld County School District Re-4
Jack C. Hale, Special Education Director
900 Main Street
Windsor, CO 80550

Weld County School District 6
Don Bennett, Special Education Director
811 15th Street
Greeley, CO 80631

Arkansas Valley Board of Cooperative Services
John Wilkerson, Special Education Director
925 Elm Street
Box 311
Rocky Ford, CO 81067

East Central Board of Cooperative Services
Steve Jones, Special Education Director
P.O. Box H
Limon, CO 80828

Mountain Board of Cooperative Services
Norma Gilmore, Special Education Director
Colorado Mountain College
Leadville, CO 80461

Northeastern Colorado Board of Cooperative Services
Herbert Oman, Special Education Director
Haxtun, CO 80731

Northern Colorado Board of Cooperative Services
Richard Vaughn, Special Education Director
830 South Lincoln
Longmont, CO 80501

Pikes Peak Board of Cooperative Services
Lewis E. Abbott, Special Education Director
1124 West Cheyenne Road
Colorado Springs, CO 80906

Northwest Board of Cooperative Services
Donald J. Sanders, Special Education Director
P.O. Box 1234
Steamboat Springs, CO 80477

San Juan Board of Cooperative Services
Allen Parelius, Special Education Director
Box 181
Durango, CO 81301

San Luis Valley Board of Cooperative Services
Vernon Reffner, Special Education Director
P.O. Box 94
Adams State College
Alamosa, CO 81101

South Central Board of Cooperative Services
Eli Nickovich, Special Education Director
900 West Orman
Pueblo, CO 81004

South Platte Valley Board of Cooperative Services
Ronald Call, Special Education Director
900 State Street
Fort Morgan, CO 80701

Southeastern Board of Cooperative Services
Al Neuhold, Special Education Director
231 Main Street
Lamar, CO 81052

Southeast Metropolitan Board of Cooperative Services
Dennis Hanley, Special Education Director
2450 South Wabash
Denver, CO 80231

Southwest Board of Cooperative Services
Ervin F. Holle, Special Education Director
P.O. Box 1420
Cortez, CO 81321

Weld County Board of Cooperative Services
Karl Schmidli, Special Education Director
204 Main Street
P.O. Box 578
La Salle, CO 80645

STATEWIDE WORKING CONFERENCE MEMBERS

Carol Amon - State Department of Education; 1362 Lincoln; Denver, CO 80203; Consultant

Mary Breukelman - Boettcher School; 1900 Downing; Denver, CO 80218; Parent

Joyce Callaway - SEMBCS Work Experence Program; Englewood High Schooll 3800 S. Logan; Denver, CO 80110; Special Ed, Voc Ed Teacher

Gil Carbajal - Pouder R-1; 2407 La Porte Avenue; Fort Collins, CO 80521; Voc Ed Teacher

Dorothy Coffman - Aurora Tech Center; 500 Buckley Road; Aurora, CO 80011; Voc Ed Teacher

Barr Connelly - Voc Rehab; 8550 West 14th Avenue; Lakewood, CO 80215; Agency Representative

Glenn Dahlem - Colorado Department of Institutions; 1453 S. Eudora, Denver, CO 80222; School Counselor, Guidance Specialist

Dan Davidson - 6900 East Evans; Denver, CO 80220; Student

Harold Dunning - Aurora Public Schools; 500 Buckley Road; Aurora, CO 80011; Voc Ed Director

Glenn Frakes - Colorado School for the Deaf and the Blind; Kiowa and Institute Streets; Colorado Springs, CO 80906 Voc Ed Director

Ron Glandt - Warren Occupational Technical Center; 13300 West Ellsworth Avenue; Golden, CO 80401; Special Ed Teacher

Ted Guttadore - Community College of Denver; 1001 East 62nd Avenue; Denver, CO 80216; Special Ed, Vocational Ed Director

Len Hergenreter - Larimer County BOCS; Box 2397; Fort Collins, CO 80522; Vocational Ed Director

Chiyo Horiuchi - Colorado Department of Education; 201 East Colfax; Denver, CO 80222; Agency Representative

Clark Johnson - Castle Rock Schools; P.O. Box Q Castle Rock, CO 80104; District Psychologist

Jules Loventhal - Job Service of Colorado; 1210 Sherman; Denver, CO 80203; Ombudsman

Paul May - State Board for Community Colleges & Ocupational Education; 1525 Sherman, Room 207; Denver CO 80203 Agency Representative

Terry Meredith - State Rehab; 8550 West 14th; Lakewood, CO 80215; Rehab Supervisor

Betty Meyer - Douglas County Schools; Box Q; Castle Rock, CO 80104; Special Ed Director

John Ogden - Mountain Plains Regional Center for the Deaf and Blind; 1346 Lincoln; Denver, CO 80203; Agnecy Representative

Betty Palme - Colorado Association for Children with Learning Disabilities; 666 Sherman, Denver, CO 80203 Parent

Rex Raney - Delta County Joint School District 50; RR 1, Box 127; Delta, CO 81416; Special Ed Director

Herb Reimer - Thompson School District R2J; 201 S. Lincoln; Loveland CO 80537; Special Ed Director

Nick Schrodt - Arapahoe-Douglas AVS & Englewood Public Schools; 3897 South Jason; Englewood, CO 80116; Vocational Ed Director

Buck Schrotberger - Colorado Department of Education; 1362 Lincoln; Denver, CO 80203; Agnecy Representative

Jean Seeman - Colorado Association for Children with Learning Disabilities; 666 Sherman; Denver, CO 80203 Parent

John Shryock - Denver Public Schools; 900 Grant; Denver, CO 80203; Vocational Ed Director

Jose Solano - Delta-Montrose Area Vocational School; Rt. 1 Box 127; Delta, CO 81416; Vocational Ed Teacher

Carl Squires - Denver Public Schools; 900 Grant St.; Denver, CO 80203; Special Ed Supervisor

Ann Stoddard - Moutain Plains Regional Center for the Deaf and Blind; 1346 Lincoln; Denver, CO 80203; Agency Representative

Bob Stokes - Mesa College; 11th and North Avenue; Grand Junction, CO 81501; Vocational Ed Counselor

Chuck Stuart - Douglas County Schools; P.O. Box Q, Castle Rock, CO 80104; Special Ed, Vocational Ed Teacher

Dale Sutton - SEMBCS Englewood High; 3800 S. Logan; Englewood, CO 80110; Special Ed Teacher

Betty Taylor - 7207 S. Spruce St.; Englewood, CO 80110; Parent

John Tesmer - Northern Colorado BOCS; Colorado State Facilitator Project; 830 S. Lincoln; Longmont CO 80501; Agency Representative

Scot Thomas - State Advisory Council on the Handicapped; 518 17th St.; Suite 1044, Denver Club Building; Denver, CO 80202 Agency Representative

Leona Van Cleef - Douglas County Schools; Rt. 1, Box 230; Franktown CO 80116; Parent

Sal Varela - 938 S. Newark St.; Aurora, CO 80012; Parent

P/M/S Staff Attendees:

Dr. Jim Camaren - Project Director

Chuck Mowry - Conference Coordinator

Nancy Fox - Project Associate

Jenny Freeman - Project Secretary

Performance Management Specialists
5200 South Quebec Street
Suite 304
Englewood, Colorado 80110
771-1646

APPENDIX F

COLORADO AGENCIES SERVING THE HANDICAPPED

ROLE AND RESPONSIBILITY

OF

ELEVEN AGENCIES IN THE STATE OF COLORADO

IN

PROVIDING PRE-VOCATIONAL AND VOCATIONAL EDUCATION PROGRAMS AND SERVICES TO HANDICAPPED CHILDREN AND YOUTH

TABLE OF CONTENTS

Heading Page

Special Education Services Unit,
Colorado Department of Education. 1

Local Public School Districts or
Administrative Units 3

Division of Rehabilitation
Colorado Department of Social Services 4

Division of Occupational Education
State Board for Community Colleges and Occupational Education. . 5

Division for Developmental Disabilities
Colorado Department of Institutions 6

Division of Welfare
Department of Social Services 8

Division of Family Health Services
Colorado Department of Health 8

Division of Employment
Colorado Department of Labor and Employment 9

County Welfare Department 9

Department of Manpower 10

Mountain Plains Regional Center for
Services to Deaf - Blind Children 10

SPECIAL EDUCATION SERVICES UNIT,
COLORADO DEPARTMENT OF EDUCATION

The role and responsibility of the Colorado Department of Education in providing special education, including pre-vocational and vocational education, to handicapped children and youth are established by law in the Handicapped Children's Educational Act, CRS 123-22, passed in 1973.

The Act provides that the public schools in Colorado shall make available special education services for the education of any handicapped child between the ages of five and twenty-one by July 1, 1975. The definition of a handicapping condition, as stated by regulations established by the Colorado Department of Education, determines the eligibility of any child or youth for special education services in the public schools for whom state reimbursement under the Act is permitted.

The definition reads: "For educational purposes, handicapped children are those persons under the age of twenty-one who have not graduated from a twelve-year school program, and who, by reason of one or more of the following identifiable conditions, have a significant impairment to learning." The conditions that follow are: physical condition, impairment or illness; vision handicap; hearing handicap; significant limited intellectual capacity; significant identifiable emotional or behavior disorder; significant identifiable perceptual communicative or speech disorder; and multiple handicap.

The Act specifies that the Article shall be administered by the Colorado Department of Education. In this role the Department promulgates rules and regulations, subject to State Board approval, to which the local school districts must adhere, and it monitors the activities of the school districts to see that they abide by those rules and regulations. These include:

1. Standards for the Administrative Unit;
2. The special education plan to be submitted by the Administrative Unit;
3. Qualifications of personnel;
4. Identification, assessment and staffing of handicapped children;
5. Types of educational service delivery;
6. Class size;
7. Accounting and auditing procedures of the Administrative Unit;
8. The management information system of the Administrative Unit.

In addition to the above regulations the Department issues teacher and other professional certificates and endorsements, and makes appropriate reimbursement to the school districts for special education costs.

Though the responsibilities above apply broadly to the provision of services to all handicapped children, they may also apply to more specific services such as pre-vocational and vocational education.

The Act does not specify what services a school district shall provide a handicapped child, though it does indicate what services may be reimbursed to the school district under provisions of the Act. The rules indicate that one of those services is full-time to half-time teachers of vocational education. While not stated in the rules, the Department of Education has endorsed, and is one of the contracting parties to the Work Experience and Study Program, which provides vocational experiences for high school handicapped youth. In this program the Department of Education, the State Board of Community Colleges and Vocational Education, and the Division of Vocational Rehabilitation of the Department of Social Services cooperate with the local school district to provide youth an opportunity to gain supervised experience on several jobs while continuing educational experiences in the classroom.

LOCAL PUBLIC SCHOOL DISTRICTS OR ADMINISTRATIVE UNITS

The Handicapped Children's Educational Act mandates that public school districts shall provide special education services to all handicapped children by July 1, 1975. The Act does not specify what kind of programs shall constitute those services but it does specify that each district, or administrative unit, must submit to the Colorado Department of Education a plan that explains in detail how it will implement the provisions of the mandate. Any plan that does not include pre-vocational and vocational education and services risks non-approval.

In general, districts or administrative units have responded to the cooperative Work Experience and Study program funded jointly by the local school district, the Colorado Department of Education, the State Board of Community Colleges and Vocational Education, and the Division of Vocational Rehabilitation of the Department of Social Services.

The Act also clearly states that handicapped children and youth will be educated in regular, non-segregated programs whenever and wherever possible. Thus, many are integrated into regular vocational education classes and programs such as auto mechanics, business, distributive education and others. Some districts have instituted special vocational programs just for the handicapped such as homemaking and office procedures.

The local school district holds the final responsibility for conducting the special pre-vocational or vocational programs. It is responsible for employing the teachers and other personnel, for providing classroom space and instructional materials, and paying for those costs not paid for by other agencies.

DIVISION OF REHABILITATION
COLORADO DEPARTMENT OF SOCIAL SERVICES

The Division of Rehabilitation derives its authority from the Colorado Code of Social Services, 1973, and the federal Public Law 93-112, Vocational Rehabilitation Act of 1973, and Public Law 93-156, Vocational Rehabilitation Act Amendments of 1974. Eligibility for services of this Division is specified as the presence of a physical or mental disability which for the individual constitutes or results in a substantial handicap to employment and a reasonable expectation that vocational rehabilitation services may benefit the individual in terms of employability. The person must be of an employable age, or nearing that age. Services, then, are usually of a nature to assist the public schools in their provision of special education, or to special agencies such as the Colorado School for Deaf and Blind, the State Home and Training Schools, and the Community Centers governing boards.

Services available include: diagnosis of disability; evaluation of rehabilitation potential; counseling and guidance; physical and mental restoration services; vocational and other training services; maintenance and transportation; services to members of a handicapped individual's family; interpreter services for the deaf; reader services, rehabilitation teaching services, and orientation and mobility services for the blind; tele-communications, sensory, and other technological aids and devices; recruitment and training services; placement; post-employment services; occupational licenses, tools, equipment, initial stocks and supplies; and other goods and services.

One of the most notable services has been the Work Experience and Study program for which the Division has been one of the sponsoring agencies.

The Division of Vocational Rehabilitation sets standards by which agencies must abide to qualify for reimbursement for services provided to the handicapped. It pays for those services for which it has contracted and agreed to pay. Division services are supplemented by vocational counselors who also assist the teacher, the client, and others involved in the education and rehabilitation of the client.

DIVISION OF OCCUPATIONAL EDUCATION
STATE BOARD FOR COMMUNITY COLLEGES AND OCCUPATIONAL EDUCATION

The Division of Occupational Education has no specific mandate by state legislation to provide services to handicapped children and youth. The federal Vocational Education Act, Public Law 90-576, provides that ten percent of Part B be set aside for the education of handicapped youth.

The Division is one of the participants in the cooperative Work Experience and Study program for handicapped youth in public high schools. Special vocational programs including, but not limited to homemaking, auto mechanics, and office procedures, are also being offered.

The Division of Occupational Education sets vocational program standards, including teacher certification and the content of the instructional program. It reimburses the local school district for those services it has agreed by contract to pay.

The Division also cooperates with the Colorado School for Deaf and Blind in a comprehensive vocational program for the blind and for the deaf.

DIVISION FOR DEVELOPMENTAL DISABILITIES
COLORADO DEPARTMENT OF INSTITUTIONS

The Division for Developmental Disabilities is the administrative agent for the following agencies:

A. Community Centers serving the Mentally Retarded and Seriously Handicapped Persons;

B. State Home and Training Schools at Grand Junction, Pueblo and Wheatridge;

C. Colorado School for the Deaf and Blind.

A. Community Centers for Mentally Retarded and for Seriously Handicapped Persons

Community Centers for Mentally Retarded and Seriously Handicapped Persons were created by the Colorado legislature, Chapter 6 of the Colorado Revised Statutes. Eligble to receive services from the Centers are mentally retarded and seriously handicapped persons of any age who require specialized services to meet their individual needs, such services not being provided by law at the community level through regularly established tax-supported programs.

A community centered program is one in which the "continuum of care", including services and resources for mentally retarded and for seriously handicapped persons, is coordinated through the planned efforts and cooperation of a community incorporated board. The board has the responsibility to assist the Department of Institutions to derive as much service as possible from existing programs of public, private or other resources, encourage the expansion and initiation of necessary services within existing community agencies, and purchase or provide appropriate training services.

The Division for Developmental Disabilities provides consultative services to local community boards, furnishes supervisory services to determine compliance with state laws and regulations, considers for approval all applications for participation in the community centered programs, and make all allocations of funds.

Most Community Center programs provide pre-vocational and vocational education and training of one kind or another, including sheltered workshops, which serve as both training and job centers.

B. State Home and Training Schools at Grand Junction, Pueblo and Wheatridge

These three institutions have the responsibility for providing comprehensive care to clients who are seriously mentally retarded persons. Each provides pre-vocational and vocational education and training for the purpose of returning mentally retarded persons to society. Each institution conducts a sheltered workshop that serves both as a job and training center. The institutions cooperate with the Division of Vocational Rehabilitation in working with the clients.

C. Colorado School for the Deaf and Blind

This institution provides residential care and education to children and youth, less than twenty-one years of age, who are deaf or who are blind. In cooperation with the Division of Vocational Education the school provides a comprehensive vocational education program for both the deaf students and the blind students.

DIVISION OF WELFARE
DEPARTMENT OF SOCIAL SERVICES

The Division of Welfare obtains its authority from Title 19 of the Social Security Act, and from Chapter 71, Article 8 of the Colorado Revised Statutes, 1973. The Division has no specific responsibility in providing pre-vocational or vocational education to handicapped youth. Its specific responsibility to handicapped children is to provide day care services so that clients may be removed from or kept out of an institution and kept in a home setting. The Division also pays for diagnostic examinations and medical services, which include physical, occupational and special therapy. However, to be eligible for services the child and/or his parents must be eligible recipients of welfare. While these services are not designed to assist in pre-vocational or vocational education, they would be available for a handicapped youth for whom either pre-vocational or vocational education was being planned or offered.

DIVISION OF FAMILY HEALTH SERVICES
COLORADO DEPARTMENT OF HEALTH

The Division of Family Health Services of the Colorado Department of Health derives its authority from the Colorado statutes dealing with the State Health Department, and Title V of the federal Social Security Act of 1935, as amended.

The Division provides services to handicapped children and youth up to twenty-one years of age. Those handicapping conditions are limited to the following diagnostic conditions: orthopedic; severe hearing loss; cleft palate, burns, or other conditions requiring plastic surgery; neurological conditions such as seizures and perceptual difficulties; vision handicaps requiring surgical management; cardiac; cystic fibrosis; and gastro-intestinal and gastro-urinary. For children and youth having these conditions the following special medical care and services can be provided: surgery; hospital; braces and/or prosthesis; hearing aids; social work; public health nursing; follow-up; audiology; and therapy consultation including occupational and physical remediation services.

While these services do not relate directly to pre-vocational or vocational training and education, they are available to any youth who is being considered for pre-vocational or vocational education or training and who has any one or more of the specific conditions named above.

DIVISION OF EMPLOYMENT
COLORADO DEPARTMENT OF LABOR AND EMPLOYMENT

The Wagner-Peyser Act of 1933, as amended, provides the initial legislative basis for the establishment of the United States Employment Service and its affiliated State employment services, including the Colorado Department of Labor and Employment.

The Division of Employment offers its services to those persons 16 years of age and older. The services, other than those provided by "handicapped specialists" are not designed specifically for the handicapped, though handicapped persons do qualify. No training service is provided. One of its major services is the administration of tests to clients, among them being the General Aptitude Test Battery, Proficiency Tests in Typing and Shorthand, and the Interest Check List. The Work Incentive Program (WIN), for recipients of aid to families with dependent children, is designed to assist the movement of those recipients from welfare rolls to self-sustaining gainful employment. The Division provides special job placement and follow-up services in addition to transportation to and from training.

COUNTY WELFARE DEPARTMENT

Welfare Departments of the counties in Colorado provide a variety of services to their clients, who must be eligible recipients of welfare. Handicapped persons are eligible for services should they meet the criteria of eligibility.

The departments provide counseling, attempt to find facilities to provide appropriate services, and make referrals to other agencies. In some instances they assign counselors to public schools.

Another service is the provision of financial assistance to families for medical treatment of children. Through this service a child may receive a complete physical examination one per year and referred for follow-up care, which may include dental, audiological and ophtholmological treatments.

The departments administer aid to "needy and disabled" clients who must be 18 years of age or over, and "aid to the blind" who must be 17 years of age or over. In each case an examination is needed to verify a long term disability.

"Supplemental Security Income", another service, is available for handicapped persons who can show that their handicap has substantially hindered their ability to make a living. However, family income is a factor in determining eligibility.

DEPARTMENT OF MANPOWER

There are eight Manpower offices in Colorado: Denver, Adams, Arapahoe, Boulder, Jefferson, El Paso, and Pueblo Counties, and in the Governor's office for the remainder of the state. The Manpower program is created and funded by the federal Comprehensive Employment and Training Act of 1973, and its purpose is to find viable employment for economically disadvantaged persons. To be eligible one must meet the poverty income criteria. Manpower services include employment counseling and assessment, vocational training, and referral. The training component is extensive in scope and includes programs funded directly by Manpower, work experience activities, and on the job training.

Should handicapped youth meet the poverty income criteria they become eligible for services. However, they are not automatically eligible because of a handicapping condition.

MOUNTAIN PLAINS REGIONAL CENTER FOR SERVICES TO DEAF - BLIND CHILDREN

The Mountain Plains Regional Center for Services to Deaf - Blind Children, established by the federal Public Law 91-230, is administered by the Colorado Department of Education, but serves eight states, including Colorado. Its purpose is to assist agencies in the states in the provision of education and care of children who have both visual and aural handicaps, and whose handicapping condition is so severe that they cannot be educated in a regular program for the visually handicapped or aurally handicapped. The program provides leadership, consultation, and funds to agencies in establishing and maintaining education programs including pre-vocational and vocation, evaluating the progress of children, casefinding and diagnosing of children, parent education and assistance, and inservice training to all personnel. All services may apply toward meeting the vocational needs of deaf-blind children and youth.